

Docket No.: 416-001

AF 3764
#13



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Applicant:	David W. Perrego) Law Office 3764
)
Serial No.:	09/740,169) Trademark Attorney:
) Quang Thanh
Filed:	December 19, 2000)
)
Title:	VERTICAL TRACTION ASSEMBLY AND METHOD)

TECHNOLOGY CENTER #3700

JAN 23 2004

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By: 

TRANSMITTAL LETTER FOR APPEAL BRIEF

Applicant hereby submits, in triplicate, an appeal brief filed within three (3) months of filing a
Notice of Appeal by First Class Mail on October 16, 2003. The attached check for two hundred and twenty
dollars (\$220.00) includes the one hundred and sixty five dollar (\$165.00) fee for filing a brief in support of
an appeal by a small entity applicant, and fifty five dollars (\$55.00) for the one month extension of time fee
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You are hereby authorized to charge any additional fees which may be required, or credit any
overpayment, to deposit account no. 13-1720.

Respectfully submitted,

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Applicant: David W. Perrego) Law Office 3764
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Honorable Commissioner
of Patents
P.O. Box 1450
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01 FC:2402 165.00 OP
02 FC:2251 55.00 OP

By: 

APPEAL BRIEF

Applicant hereby submits, in triplicate, an appeal brief filed within three (3) months of filing a Notice of Appeal by First Class Mail on October 16, 2003. A check (\$220.00) for \$165.00 for filing a brief in support of an appeal by a small entity applicant is attached to the transmittal letter.

One Month Extension of Time

Applicant respectfully requests an extension of time for filing this appeal brief within the first month after the two (2) month filing requirement of 37 CFR § 1.192. The check attached to the transmittal letter also pays the extension of time fee \$55.00 for a small entity applicant.

Applicant filed a petition pursuant 37 CFR § 1.182 by facsimile transmission on December 15, 2003 requesting entry of Applicant's amendment filed October 16, 2003 in response to the examiner's final rejection dated July 15, 2003. To date, the director of Patent Technology Center 3700 has not acted on Applicant's petition. Applicant fully expected to have a decision within the

first month of the extension of time so that he could proceed on the basis of the claims as amended after the final rejection. But to avoid the necessity of having to pay the excessive government fees for an extension beyond the first month, it is necessary for him to proceed as set forth below.

Real Party in Interest

Applicant, David W. Perrego, is the real party in interest.

Related Appeals and Interferences

No other appeal and/or interference exists that will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

Status of Claims

Originally filed Claims 1-19 were subjected to a requirement for restriction and method claims 16-19 were withdrawn from consideration on their merits in the final rejection. Claims 1-15 as amended after the first office action dated May 8, 2002 (Appendix A) are those currently subject to the possible entry of Applicant's proposed amendments after the final rejection of July 15, 2003.

Status of Amendments

Applicant timely filed a response with proposed amendments to the claims on October 16, 2003 after the final rejection dated July 15, 2003. In his October 30, 2003 office action, the examiner refused to enter Applicant's amendments after final rejection because "they raise new issues that would require further consideration and/or search," and "they are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal." More specifically, the examiner states that the "amendment has changed the scope of the claims...for example in claim 1 adding 'standing frame means' and 'depend downwardly,' and in claim 2 adding 'assuming said vertical traction suspension position' are further limitations never before considered."

Applicant shows in his petition how the issues related to the proposed limitations questioned in Claims 1 and 2 have been previously considered by the examiner in Applicant's claims submitted after the first office action dated May 8, 2002.

The amended claims proposed after final rejection (Appendix B) are those now being considered for entry by the director of Patent Technology Center 3700, Art Unit 3764.

Summary of the Invention

The vertical traction assembly of the invention directs a focused traction force specifically to the area of maximal muscle strain and spasm along a person's spine when using gravity to stretch a his or her spine while in a vertical traction suspension position. The assembly comprises frame means and torso harness coupled to downwardly depend from the frame means. Stand means provides a non-traction receiving surface adjacent the frame means on which a person may step to don the torso harness. The harness means is effective to suspend the person from the frame means when the person steps from the non-traction receiving surface to a vertical traction suspension position after donning the harness. In short, the assembly enables the person to personally subject himself or herself to treatment on the claimed assembly without necessary assistance by another person as is required in other known traction assemblies.

The traction force focusing means connected to the frame means directs traction pressure to a selected location along the spine of the person whose legs are freely hanging downwardly while suspended in a vertical traction suspension position. The focused traction force means is adjustably connected to the frame means to be selectively secured to a plurality of vertical locations for directing a gravity traction force to a preselected area at a point along the spine of the person in suspension. (See the first two paragraphs under "The Summary of the Invention" at pages 5 and 6 of

the written description; pad element 25 shown in Figs. 1-2 and 4-8 explained at pages 10-14; and pad element 43 in Fig. 9 explained at page 14.)

Unlike known traction assemblies that require the person to be in traction for extended periods of time, the traction pressure is applied for short periods of time with a protocol that includes a treatment cycle having a plurality of abbreviated traction sessions when the patient is suspended in the vertical traction suspension position. The traction sessions are separated with respect to each other with a rest period without traction. More particularly, each traction session may have a duration of up to 90 seconds and each rest period a duration of up to 90 seconds. And the traction pressure is equal to about 40% of the patient's body weight. (See full paragraph at page 7 of the written description.)

The patient's lower body freely suspends from the frame structure to allow for subtle side-to-side shifts in the person's weight that produce a "balanced suspension" that increases the pull on tighter muscles. Depending on the amount of spasm present, the traction force draws up and shortens the tight muscles primarily on the affected side. So the hanging legs cause the side with the shortest muscles to take the bulk of the traction force thereby causing shorter muscles to be pulled harder and elongated. In short, the side undergoing the most spasm will receive the most force and benefit. (See first full paragraph at page 8.)

Stand means mounted to the frame means provides a non-traction receiving surface on which the person may step to don the torso harness means and a partial traction receiving surface. The harness means suspends the person from the frame means for less than full traction obtained in a full vertical traction suspension position when the person initially steps from the non-traction receiving surface to the partial traction receiving surface after donning the harness. An individual requires little

preparation for using the assembly of the invention. The patient simply adjusts the harness to fit his or her particular body size and dons it while standing on a platform elevated with respect to the floor so that no traction is produced. Once the torso harness is secured to the person's body and gradually lowers himself or herself into a suspended position for a traction session. (See the last full paragraph on page 8 and bridging paragraph on pages 8-9.)

Issues

1. Whether or not claims 3, 6-7 are still objected to since the examiner denied entry of the amendments to correct this informality under 35 U.S.C. § 112, second paragraph. Notably, without entry of the amendment, the examiner does not reference any claims objected to in paragraph 7 of his October 30, 2003 office action. It's not clear as to whether his objection of paragraph 1 under "Claim Objections" in his final rejection of July 15, 2003 still applies.

2. Whether or not claims 4 and 15 stand rejected under 35 U.S.C. § 112, first paragraph, as lacking enablement because the "applicant fails to disclose specifically how the focused traction pressure means (what structure?) would ensure to deliver the predetermined force of about 40% weight (how is a pad capable of delivering this predetermined force?) to the spine of a user. Without entry of the applicant's amendment after final rejection that addresses this question, it's unclear as to whether this rejection of claims 4 and 15 still applies.

3. Whether Chitwood (U.S. Patent 5,662,597) anticipates claim 1 under 35 U.S.C. §102. Specific issues related to the anticipation issue include the following:

- a) Whether the Chitwood harness means 66 is "effective to maintain a person in a vertical traction suspension position."
- b) Whether the Chitwood head receiving portion 20 constitutes a "traction force

focusing means” as Applicant discloses and claims.

4. Whether Burton (U.S. Patent 4,205,665) anticipates claim 9 under 35 U.S.C. § 102.

Specific issues related to the anticipation issue include the following:

- a) Whether the mere utilization of the force of gravity to produce a traction force always finds a person in “a vertical traction suspension position” as in claim 9.
- b) Whether the lower Burton platform 96 that is disposed directly below the upper Burton platform 94 allows the person to stand on lower platform 96 at anytime.

5. Whether Nelson (U.S. Patent 4,890,604) renders claims 1, 7, and 10-14 to be obvious and unpatentable under 35 U.S.C. §103(a).

6. Whether Nelson in view of Burton renders claims 2-6, 8, and 15 obvious and unpatentable under 35 U.S.C. §103(a).

Grouping of Claims

Claim 1 is rejected as being anticipated by Chitwood .

Claim 9 is rejected as being anticipated by Burton.

Claims 1, 7, and 10-14 are rejected as being obvious over Nelson.

Claims 2-6, 8, and 15 are rejected as being obvious over Nelson in view of Burton.

Argument

Claims 1, 9 and 10 are independent claims. Claims 2-8 depend from claim 1 with claims 2-6 incorporating the “stand means” and the derivation and amount of “focused traction pressure” that more specifically recite novel structural features that enable a person, without the aid of another, to don the harness means, and to control the amount of time spent in traction.

Claim 7 incorporates a novel function of the focused traction force means “being effective to

derive said focused traction pressure from a portion of the weight of the person in said traction position” while the person “is vertically suspended with the harness means to produce said focused traction pressure.”

Claim 8 recites the novel structure of the adjustable feature of the traction force focusing means is directed to “a selected location along the spine of a person” at “an inflamed area on the person’s back” thus highlighting a capability and function not found in known traction assemblies.

Claim 9 is directed to a novel free standing structure with stand means that distinguishes over a traction structure having frame means that may not be free standing and requires the aid of others for a person to receive traction pressure as claimed.

Claims 11-15 depend from claim 10 with claims 11-13 defining novel “backboard means” (claim 11) that supports the upper body portion of the person who is girded with the harness means while the lower portion of the person’s body is “suspended in said gravity traction suspension position.” Claim 12 further sets forth a novel “releasable tightening means for selectively securing the focused traction force means to a plurality of vertical locations along said backboard means.” Claim 13 further defines the “backboard means” in terms of the novel “front rearwardly tilted frame portion,” and “pad element means adjustably mount to the backboard means and releasable fastening means for selectively positioning the pad element means with respect to a person using said assembly to undergo vertical traction treatment in a full suspension position.” Claims 14 and 15 respectively define a novel “focused traction force means” to be “effective to direct a traction force equal to a fraction of the person's weight at said selected location along the spine of said person,” and the “traction force” to be “equal to about 40% of the person's weight.”

No known traction structure enables its user to do what the claimed structures of the

independent and dependent claims accomplish as set forth above. So the specifically claimed structures thus constitute further inventive features of Applicant's novel traction assembly. For the foregoing reasons, the claims of the groups of single claim 1; claim 9; claims 1, 7, and 10-14; and claims 2-6, 8, and 15 do not stand or fall together.

35 U.S.C. § 112, First and Second Paragraph Issues

1. Whether or not claims 3, 6-7 are still objected to since the examiner denied entry of the amendments to correct this informality under 35 U.S.C. § 112, second paragraph.

Notably, without entry of the amendment, the examiner does not reference any claims objected to in paragraph 7 of his October 30, office action. It's not clear as to whether his objection of paragraph 1 under "Claim Objections" in his final rejection of July 15, 2003 still applies. Applicant attempted to amend claims 3 and 7 to specify a "vertical traction suspension system" in place of "traction position" to which the examiner objects. Applicant, however, unintentionally overlooked the same proposed amendment in claim 6.

2. Whether or not claims 4 and 15 stand rejected under 35 U.S.C. § 112, first paragraph, as lacking enablement.

The examiner alleges that the "applicant fails to disclose specifically how the focused traction pressure means (what structure?) would ensure to deliver the predetermined force of about 40% weight (how is a pad capable of delivering this predetermined force?) to the spine of a user. In his August 8, 2002 response, Applicant provided an insert at page 3 of his written description that fully explains how Applicant's "traction force focusing means" (pad element means 25) simply takes advantage of the principle that for every force applied in one direction there is an equal opposite force. The person in the claimed "vertical traction suspension position" attained in Applicant's claimed structure simply focuses the amount of body weight that is effective to produce a traction

force known to be produced in existing traction systems. Applicant's claimed structure simply more effectively uses that force of about 40% of the suspended person's body weight by applying it to a selected location along the person's spine rather than being distributed along the entire length of the spinal column as in Chitwood, Nelson, and Burton structures.

Without entry of the applicant's amendment after final rejection that addresses this question, it's unclear as to whether this rejection of claims 4 and 15 still applies.

The Inventive Concepts of Applicant's Traction Assembly

1. A traction assembly that focuses a traction force at a selective location of a person's spine while the person is suspended (hangs) in a vertical traction suspension position.
2. The novel traction assembly eliminates long periods of time in traction as in known assemblies.
3. The Applicant's novel traction assembly enables a person to receive effective traction treatment to a selected inflamed area along the length of his or her spine without the aid of others while safely and fully controlling the time of applied traction.

Definitions of Terms Used in Applicant's Claims and the Prior Art References

To insure full and accurate communication with the Board, and in view of arguments presented in the Patent Office actions, the ordinary meaning of specific terms related to the determination of patentability of Applicant's invention is required.

Webster's New Third International Dictionary (the Dictionary) defines *freestanding* as "standing alone or on its own foundation free of architectural or supporting frame or attachment;" *occipital bone* as "a compound bone that forms the posterior part of the skull and surrounds the foramen magnum bearing condyle or condyles for articulation with the atlas in vertebrates;" *standing*

as “upright on the feet or in place: erect;” *suspension* as “an act of hanging or the state of being hung;” and *vertical* as “perpendicular to the plane of the horizon or to a primary axis.” See attached respective pages 907, 1560, 2224, 2303, and 2546 of the Dictionary.

The Law Related to Anticipation

For anticipation under 35 U.S.C. 102, the reference must teach every aspect of the claimed invention either explicitly or impliedly. Any feature not directly taught must be inherently present. “A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.” *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). “When a claim covers several structures or compositions, either generically or as alternatives, the claim is deemed anticipated if any of the structures or compositions within the scope of the claim is known in the prior art.” *Brown v. 3M*, 265 F.3d 1349, 1351, 60 USPQ2d 1375, 1376 (Fed. Cir. 2001) (claim to a system for setting a computer clock to an offset time to address the Year 2000 (Y2K) problem, applicable to records with year date data in “at least one of two-digit, three-digit, or four-digit” representations, was held anticipated by a system that offsets year dates in only two-digit formats). See also MPEP § 2131.02. “The identical invention must be shown in as complete detail as is contained in the ... claim.” *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989). The elements must be arranged as required by the claim, but this is not an *ipsissimis verbis* test, i.e., identity of terminology is not required. *In re Bond*, 910 F.2d 831, 15 USPQ2d 1566 (Fed. Cir. 1990).

3. Whether Chitwood (U.S. Patent 5,662,597) anticipates claim 1 under 35 U.S.C. §102.

The examiner states that the Chitwood “adjustable inclined table ... would place the user in a

vertical traction suspension.” Claim 1 requires a “harness means” “effective to maintain a person in a vertical traction suspension position after the person dons said harness means.” A user’s “vertical traction suspension position” requires the user to be “perpendicular to the plane of the horizon or to a primary axis.” Chitwood discloses no such harness means that depends downwardly from a standing frame means to produce the recited function. In contrast, Chitwood’s harness is disposed along an inclined surface, and the user is never in a “vertical traction” hanging position so that the person’s body is “perpendicular to the plane of the horizon or to a primary axis.”

Chitwood’s “head and neck support structure” 20 produces a “gravity force from the user’s/patient’s body on the occipital bone at the back of the head of the patient or user to provide adequate stretching of the cervical area of the neck” (Chitwood, col. 5, ls. 10-14). The occipital bone is in the posterior of the head and **not in the spinal column** as the examiner argues. So structure 20 is not a “traction force focusing means.”

a) Whether the Chitwood harness means 66 is “effective to maintain a person in a vertical traction suspension position.”

The strap or harness assembly 60 with belt 66 “can be used to limit the amount of gravity force exerted by the user’s or patient’s head against the ridge or shoulder 34 and the adjacent lift surface 36 of the head receiving portion 20” (Chitwood, col. 5, ls. 4-7). The person does not hang in a vertical disposition that is perpendicular to the plane of the horizontal surface supporting his traction assembly. That is, a person merely reclining on the inclined Chitwood table 12 is not suspended as Applicant discloses and claims. So the Chitwood harness 60/66 is not “effective to maintain a person in a vertical traction suspension position.”

b) Whether the Chitwood head receiving portion 20 constitutes a “traction force focusing means” as Applicant discloses and claims.

The person reclines on an inclined surface to inherently distribute the person's weight along the entire length of the spine. It is impossible for the Chitwood head receiving portion to apply "a predetermined amount of focused traction pressure directly to a selected location along the spine of the person who is in said vertical traction suspension position." A person using the Chitwood assembly is incapable of hanging suspended in a vertical position with respect to the surface supporting the assembly. Thus it is impossible for the head receiving portion 20 to address any inflamed area in the lumbar location or any other selective location. No evidence exists in the Chitwood disclosure that the mere mating of the center portion 30 directs a focused traction force to the person's spine. The head receiving portion 30 is used to simply "provide adequate stretching of the cervical area of the neck (Chitwood, col. 5, ls. 14-15).

For these foregoing reasons, Chitwood cannot anticipate Applicant's claim 1.

4. Whether Burton (U.S. Patent 4,205,665) anticipates claim 9 under 35 U.S.C. § 102.

The examiner states that Burton's apparatus uses "the force of gravity" for "spinal traction therapy." Frame means 54 is a rotating structure not a standing structure that is necessary for Applicant's harness means to "depend downwardly from" his frame means to enable the user to suspend or hang "perpendicular to the plane of the horizon or to a primary axis" as set forth in claim 9. Burton's foot stop 93 does not have a surface to perform the claimed function, but is merely "a safety device to help protect the patient from a fall if one of the primary support elements fails." Burton's lower platform 96 is used to clamp his contraption to the bed and provides no surface upon which the patient can stand to do anything let alone to perform the specific functions recited in claim 9. And the donning of Burton's harness cannot be effected by the user but must be assisted

by another person. In contrast, if necessary, a user of Applicant's assembly needs no assistance to don the claimed harness means to receive the benefits of the claimed device. No such benefits exist in using the Burton assembly. See Burton, col 5, ls. 35-43.

a) Whether the mere utilization of the force of gravity to produce a traction force always finds a person in "a vertical traction suspension position" as in claim 9.

The limitation of "a vertical traction suspension position" refers to the position of the person using Applicant's assembly. It is not in reference to the mere force of gravity acting on a person in any position with respect to the floor on which any known device is located. In fact, Burton shows many positions for a person on whom gravity is producing a traction force. But none of the positions finds a person hanging in a vertically disposed position against a "traction force focusing means" Applicant claims. Clearly, a person's weight is inherently distributed over the entire length of the body against the bed surface in the Burton structure. And Burton's harness 32 is *not* "effective to suspend the person from the [Burton] frame means [54] for a partial traction pressure when the person stands on said second partial traction receiving surface after donning said harness means" as in claim 9.

b) Whether the lower Burton platform 96 that is disposed directly below the upper Burton platform 94 allows the person to stand on lower platform 96 at anytime.

The Burton lower platform 96 of foot stop 93 is clamped to the existing bed foot board 98 by clamps 100" (Burton, col. 5, 37-39). In other words, platform 96 is merely part of the attachment means that connects the foot stop 93 to the Burton frame. A scissors mechanism 102 is used "to adjust the position of upper platform 94 to just below the patient's feet as a safety device to help protect the patient from a fall if one of the primary support elements fails" (Burton, col 5, ls. 39-43). There is no way that a person "may" stand on the upper platform 94 "to don the harness 32," nor is

there any way that a person “may” stand to adjust said harness means with respect to the person’s torso and assembly before the person voluntarily steps to a vertical, gravity traction suspension position” as in claim 9. In short, the Burton structure is incapable of “performing [Applicant’s] intended use” of its claimed stand means as the examiner alleges.

For all of the foregoing reasons, Burton does not anticipate Applicant’s claim 9.

The Law Related to Obviousness

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art and not based on applicant’s disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

The initial burden is on the examiner to provide some suggestion of the desirability of doing what the inventor has done. “To support the conclusion that the claimed invention is directed to obvious subject matter, either the references must expressly or impliedly suggest the claimed invention or the examiner must present a convincing line of reasoning as to why the artisan would have found the claimed invention to have been obvious in light of the teachings of the references.” *Ex parte Clapp*, 227 USPQ 972, 973 (Bd. Pat. App. & Inter. 1985).

“There are three possible sources for a motivation to combine references: the nature of the problem to be solved, the teachings of the prior art, and the knowledge of persons of ordinary skill

in the art.” *In re Rouffet*, 149 F.3d 1350, 1357, 47 USPQ2d 1453, 1457-58 (Fed. Cir. 1998) (The combination of the references taught every element of the claimed invention, however without a motivation to combine, a rejection based on a *prima facie* case of obvious was held improper.). The level of skill in the art cannot be relied upon to provide the suggestion to combine references. *Al-Site Corp. v. VSI Int’l Inc.*, 174 F.3d 1308, 50 USPQ2d 1161 (Fed. Cir. 1999).

“In determining the propriety of the Patent Office case for obviousness in the first instance, it is necessary to ascertain whether or not the reference teachings would appear to be sufficient for one of ordinary skill in the relevant art having the reference before him to make the proposed substitution, combination, or other modification.” *In re Linter*, 458 F.2d 1013, 1016, 173 USPQ 560, 562 (CCPA 1972). Obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either explicitly or implicitly in the references themselves or in the knowledge generally available to one of ordinary skill in the art. “The test for an implicit showing is what the combined teachings, knowledge of one of ordinary skill in the art, and the nature of the problem to be solved as a whole would have suggested to those of ordinary skill in the art.” *In re Kotzab*, 217 F.3d 1365, 1370, 55 USPQ2d 1313, 1317 (Fed. Cir. 2000). See also *In re Lee*, 277 F.3d 1338, 1342-44, 61 USPQ2d 1430, 1433-34 (Fed. Cir. 2002) (discussing the importance of relying on objective evidence and making specific factual findings with respect to the motivation to combine references); *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988); *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992).

5. Whether Nelson (U.S. Patent 4,890,604) renders claims 1, 7, and 10-14 to be obvious and unpatentable under 35 U.S.C. §103(a).

The mere showing that “a gravitational traction device designed to use gravity acting on a patient’s body and tending to pull the body downwardly along the inclined surface of the platform” reads on any device like those shown in Nelson, Chitwood, and Burton. Yet none of these references show the person in traction hanging in a suspended manner with a focused traction directed to a selective location of the person’s spine. Clearly the examiner’s characterization of gravity pulling downwardly while in a reclining position does not constitute maintaining “a person in a vertical traction suspension position” as the claims require.

Nelson discloses embodiments of a traction table assembly having standing frames 14 and 119 with respective rotatable table assemblies 15 and 120 mounted thereon. In turn, table assemblies 15 and 120 include respective patient platforms 17 and 122 in which the horizontally positioned patient is strapped by a conventional body strap 43 that does not depend downwardly from the table assembly but extends upwardly from it (Nelson, col. 5, ls 40-42). The user’s body is held to the slidable platforms 17 and 122 with the additional help of head and foot restraints (not in Applicant’s claimed assembly) so that the patient platform assemblies move “freely in a direction parallel to the [respective frames 16 and 122] with the extremities of the patient restrained, thus inducing traction in the patient according to the inclination and the patient weight.” No teaching exists of a harness means for supporting the user in a “vertical traction suspension position.” And contrary to the examiner’s assertions, platforms 17 and 122 (comprising interconnected “wheeled trolley units 145-147”) distribute the traction force “over the body length of the patient” without any focused traction pressure from a “traction force focusing means.” See Nelson, col. 5, ls. 55-58.

In view of the foregoing analysis, Nelson's frame means 17 and 122 are not "standing" or "freestanding;" no torso harness means perform Applicant's claimed functions; and the single wheeled trolley 147 provides no focused pressure to the prone patient's back any more than to do connected trolleys 145, 146, or 148. Applicant's traction force focusing means is connected to backboard means but the examiner alleges that the movably mounted trolleys are somehow equivalent to Applicant's fixedly adjustable traction force focusing means. The trolleys cannot be tightened to the track 122. If they were, the Nelson assembly would not be usable for its intended purpose. And nothing in Nelson shows a patient hanging in a perpendicular position as required in the claims. Obviously, a person who is in a reclining position when using the Nelson assembly and *not* hanging in a position that is perpendicular to the plane of the horizontal surface supporting his traction assembly can be in a "vertical traction suspension position" as Applicant's claims require.

Nelson's "wheeled carriage 144" of his oscillating table assembly is distributed "over the body length of the patient" who is reclined on the Nelson platform assembly 123 (Nelson, col. 5, ls. 53-58; col. 6, ls 48-58). So the Nelson wheeled trolley unit 147 supports the person's body with the same force as wheeled trolley units 145, 146, and 148. That is, Nelson's "wheeled trolley unit 147" is not "effective to direct a traction force equal to a fraction of the person's weight at said selected location along the spine of said person" as in claim 14 apart from and with respect to any of the other Nelson "trolley units 145, 146, and 148" as the examiner alleges. Therefore there can be no application of "a predetermined amount of focused traction pressure directly to a selected location along the spine of the person who is in said vertical traction suspension position."

The optional "conventional body strap" 43 as shown in Nelson Figs. 1 and 2 "can be applied to the individual to secure him relatively to the pad 20" (Nelson, col. 5, ls. 40-42). Therefore strap

43 does not depend “downwardly from the [Nelson] frame means” 122 to vertically suspend the person as the examiner alleges. So Nelson does not disclose a “torso harness means” that is “effective to maintain a person in gravity traction suspension position” as the examiner alleges and as Applicant discloses and claims.

Regarding claims 11-14, a person on Nelson’s “wheeled carriage 144” girded with the optional “conventional body strap” 43 cannot function as “backboard means for supporting an upper body portion of the person who is girded with said harness means and suspended in said gravity traction suspension position” as in claim 11. Nelson’s “roller or wheel 153” of his “wheeled carriage 144” are incapable of functioning as “releasable tightening means for selectively securing the focused traction force means to a plurality of vertical locations along said backboard means” as the examiner alleges and as in claim 12. The Nelson “pad or cushion” 150 of “wheeled trolley unit” 147 is clearly not adjustably mounted on the Nelson “wheeled carriage 144” as the examiner alleges is equivalent to the “backboard means” of claim 13. The Nelson “wheeled carriage 144” is not part of the Nelson “support frame 122,” and the “pad or cushion” 150 is not equivalent to the “pad element means” of claim 13 as the examiner alleges.

6. Whether Nelson in view of Burton renders claims 2-6, 8, and 15 obvious and unpatentable under 35 U.S.C. §103(a).

As fully discussed above, neither Nelson nor Burton discloses any of Applicant’s claimed structures and their functions. Therefore, neither Nelson nor Burton teaches one having ordinary skill in the art to do what Applicant has done and claimed. The examiner does not find any suggestion to combine the references; he perceives no problem in the prior art that would occur to the person having ordinary skill in the art to do what Applicant has done; and must therefore rely on

the teaching of Applicant's own disclosure to justify the combination of these two references.

Nothing is found in either Nelson or Burton that would enable such a person to practice Applicant's invention or lead him to do what Applicant has invented. So even if the combination of the references were appropriate, which Applicant categorically denies and refutes, the resultant combination of teachings would still not produce Applicant's claimed invention. It's clear that neither Nelson nor Burton would function in the manner in which the disclosed structures operate if the reference teachings were combined. That is, the Nelson and Burton structures would be rendered unable to function (inoperative) as disclosed therein. For treating a person hanging in a "vertical traction suspension position" is a complete departure from the structure and operation of either of the supporting platforms on which the traction force is distributed along the entire length of the person's spine.

For the foregoing reasons, the rejection claims 2-6, 8, and 15 over Nelson in view of Burton has no merit.

Conclusion

In view of the foregoing, Applicant requests that the Board reverse the examiner's rejections and allow the applicant's claims to issue.

Respectfully submitted,
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APPENDIX A

Claims As First Amended After First Office Action (Proposed Amended Claims After Final Rejection Not Yet Entered)

1. A vertical traction assembly for using gravity to stretch a person's spine, said assembly comprising:
 - a) frame means and torso harness means coupled to depend from said frame means,
 - b) said harness means being effective to maintain a person in a vertical traction suspension position after the person dons said harness means, and
 - c) traction force focusing means attached to the frame means for applying a predetermined amount of focused traction pressure directly to a selected location along the spine of the person who is in said vertical traction suspension position.
2. An assembly as defined in claim 1 wherein
stand means disposed on said frame means includes non-traction receiving surface means on which a person stands for donning the torso harness means before applying said predetermined amount of focused traction pressure.
3. An assembly as defined in claim 2 wherein
said predetermined amount of focused traction pressure is derived from the weight of the person who is in said traction position.
4. An assembly as defined in claim 3 wherein
said predetermined amount of focused traction pressure is equal to about 40% of said person's weight.
5. An assembly as defined in claim 1 wherein

stand means is mounted to said frame means and includes said non-traction receiving surface and a partial traction receiving surface on which the person may stand to effect adjustment of the harness means with respect to the frame means and the person's torso before being said person is subjected to a full traction treatment,

said harness means being effective to produce a partial traction treatment pressure equal to a desired percentage of a full traction treatment pressure when the person steps from the non-traction receiving surface to said partial traction receiving surface after donning said harness means.

6. An assembly as defined in claim 5 wherein

said desired percentage is about 20% of the full traction treatment pressure which is equal to about 40% of the weight of the person who is in the traction position.

7. An assembly as defined in claim 1 wherein

said frame means is free standing and said harness means depends downwardly from said frame means,

said focused traction force means being effective to derive said focused traction pressure from a portion of the weight of the person in said traction position, and

said vertical traction suspension position is a gravity traction suspension position with said person being vertically suspended with the harness means to produce said focused traction pressure.

8. An assembly as defined in claim 1 wherein

said selected location along the spine of the person includes an inflamed area on the person's back.

9. A vertical traction assembly for using gravity to stretch a person's spine, said assembly

comprising:

a) frame means and torso harness means coupled to flexibly depend from said frame means, and

b) stand means mounted to said frame means to provide a first non-traction receiving surface on which a person may stand to don the torso harness means and a second partial traction receiving surface on which a person may stand to adjust said harness means with respect to the person's torso and assembly before the person voluntarily steps to a vertical, gravity traction suspension position,

c) said harness means being effective to suspend the person from the frame means for a partial traction pressure when the person stands on said second partial traction receiving surface after donning said harness means,

d) said partial traction pressure being less than a full traction pressure that is applied to the person who is in said vertical, gravity traction suspension position.

10. A traction assembly for using gravity to stretch a person's spine, said assembly comprising:

a) free standing frame means and harness means effective to releasably gird the torso of a person,

b) said harness means being coupled to flexibly depend from said frame means to suspend the person from the frame means in a gravity traction suspension position, and

c) focused traction force means adjustably connected to the frame means for applying traction pressure directly to a selected location along the spine of the person in said gravity traction suspension position.

11. An assembly as defined in claim 10 wherein

said frame means includes backboard means for supporting an upper body portion of the person who is girded with said harness means and suspended in said gravity traction suspension position.

12. An assembly as defined in claim 11 wherein

said backboard means includes said focused traction force means having releasable tightening means for selectively securing the focused traction force means to a plurality of vertical locations along said backboard means.

13. An assembly as defined in claim 10 wherein

said frame means includes a front rearwardly tilted frame portion including backboard means,

said traction force focusing means includes pad element means adjustably mounted to the backboard means and releasable fastening means for selectively positioning the pad element means with respect to a person using said assembly to undergo vertical traction treatment in a full suspension position.

14. An assembly as defined in claim 10 wherein

said focused traction force means is effective to direct a traction force equal to a fraction of the person's weight at said selected location along the spine of said person.

15. An assembly as defined in claim 14 wherein

said traction force is equal to about 40% of the person's weight.

APPENDIX B

Proposed Amended Claims Submitted After Final Rejection

1. A vertical traction assembly for using gravity to stretch a person's spine, said assembly comprising:
 - a) standing frame means and torso harness means coupled to depend downwardly from said frame means,
 - b) said harness means being effective to maintain a person in a vertical traction suspension position after the person dons said harness means, and
 - c) traction force focusing means attached to the frame means for applying a focused traction pressure directly to a selected location along the spine of the person who is in said vertical traction suspension position.
2. An assembly as defined in claim 1 wherein
said standing frame means includes non-traction receiving surface means on which a person stands for donning the torso harness means before assuming said vertical traction suspension position and applying said focused traction pressure.
3. An assembly as defined in claim 2 wherein
said focused traction pressure is derived from the weight of the person who is in said vertical traction suspension position.
4. An assembly as defined in claim 3 wherein
said focused traction pressure is equal to about 40% of said person's weight.
5. An assembly as defined in claim 2 wherein

said standing frame means further includes a partial traction receiving surface on which the person to be maintained in said vertical traction suspension position may stand to effect adjustment of the harness means with respect to the frame means and the person's torso before said person is subjected to a full traction treatment,

said harness means being effective to produce a partial traction treatment pressure equal to a desired percentage of a full traction treatment pressure when the person steps from the non-traction receiving surface to said partial traction receiving surface after donning said harness means.

6. An assembly as defined in claim 5 wherein

said desired percentage is about 20% of the full traction treatment pressure which is equal to about 40% of the weight of the person who is in the traction position.

7. An assembly as defined in claim 1 wherein

said frame means is free standing and said traction force focusing means being effective to derive said focused traction pressure from a portion of the weight of the person in said vertical traction suspension position with said person being vertically suspended with the harness means to produce said focused traction pressure.

8. An assembly as defined in claim 1 wherein

said selected location along the spine of the person includes an inflamed area on the person's back.

9. A vertical traction assembly for using gravity to stretch a person's spine, said assembly comprising:

a) standing frame means and torso harness means coupled to flexibly depend

downwardly from said frame means, and

b) said frame means including a first non-traction receiving surface means for supporting a person while standing to don the torso harness means and a second partial traction receiving surface means for supporting a person while standing to adjust said harness means with respect to the person's torso and assembly before the person voluntarily steps to a vertical, gravity traction suspension position,

c) said harness means being effective to suspend the person from the frame means for a partial traction pressure when the person stands on said second partial traction receiving surface means after donning said harness means,

d) said partial traction pressure being less than a full traction pressure that is applied to the person while in said vertical, gravity traction suspension position.

10. A traction assembly for using gravity to stretch a person's spine, said assembly comprising:

a) freestanding frame means and harness means effective to releasably gird the torso of a person,

b) said harness means being coupled to flexibly depend downwardly from said frame means to suspend the person from the frame means in a vertical traction suspension position, and

c) focused traction force means adjustably connected to the frame means for applying traction pressure directly to a selected location along the spine of the person in said vertical traction suspension position.

11. An assembly as defined in claim 10 wherein

said frame means includes backboard means for supporting an upper body portion of the

person who is girded with said harness means and suspended in said vertical traction suspension position.

12. An assembly as defined in claim 11 wherein

said backboard means includes said traction force focusing means having releasable tightening means for selectively securing the traction focusing force means to a plurality of vertical locations along said backboard means.

13. An assembly as defined in claim 10 wherein

said frame means includes a front rearwardly tilted frame portion including backboard means,

said traction force focusing means includes pad element means adjustably mounted to the backboard means and releasable fastening means for selectively positioning the pad element means with respect to a person's spine before said person is in said vertical traction suspension position.

14. An assembly as defined in claim 10 wherein

said traction force focusing means is effective to direct a traction force equal to a fraction of the person's weight at said selected location along the spine of said person.

15. An assembly as defined in claim 14 wherein

said traction force is equal to about 40% of the person's weight.

Proposed Amended Claims 1-15 with Markings to Show Proposed Changes

1. A vertical traction assembly for using gravity to stretch a person's spine, said assembly comprising:

a) standing frame means and torso harness means coupled to depend downwardly from said frame means,

b) said harness means being effective to maintain a person in a vertical traction suspension position after the person dons said harness means, and

c) traction force focusing means attached to the frame means for applying a ~~predetermined amount of~~ focused traction pressure directly to a selected location along the spine of the person who is in said vertical traction suspension position.

2. An assembly as defined in claim 1 wherein

~~stand means disposed on~~ said standing frame means includes non-traction receiving surface means on which a person stands for donning the torso harness means before assuming said vertical traction suspension position and applying said ~~predetermined amount of~~ focused traction pressure.

3. An assembly as defined in claim 2 wherein

said ~~predetermined amount of~~ focused traction pressure is derived from the weight of the person who is in said vertical traction suspension position.

4. An assembly as defined in claim 3 wherein

said ~~predetermined amount of~~ focused traction pressure is equal to about 40% of said person's weight.

5. An assembly as defined in claim ~~1~~ 2 wherein

~~stand means is mounted to~~ said standing frame means ~~and includes said non-traction receiving surface and~~ further includes a partial traction receiving surface on which the person to be maintained in said vertical traction suspension position may stand to effect adjustment of the

harness means with respect to the frame means and the person's torso before ~~being~~ said person is subjected to a full traction treatment,

said harness means being effective to produce a partial traction treatment pressure equal to a desired percentage of a full traction treatment pressure when the person steps from the non-traction receiving surface to said partial traction receiving surface after donning said harness means.

6. An assembly as defined in claim 5 wherein

said desired percentage is about 20% of the full traction treatment pressure which is equal to about 40% of the weight of the person who is in the traction position.

7. An assembly as defined in claim 1 wherein

said frame means is free standing and ~~said harness means depends downwardly from said frame means~~, said ~~focused~~ traction force focusing means being effective to derive said focused traction pressure from a portion of the weight of the person in said vertical traction suspension position, and ~~said vertical traction suspension position is a gravity traction suspension position~~ with said person being vertically suspended with the harness means to produce said focused traction pressure.

8. An assembly as defined in claim 1 wherein

said selected location along the spine of the person includes an inflamed area on the person's back.

9. A vertical traction assembly for using gravity to stretch a person's spine, said assembly comprising:

a) standing frame means and torso harness means coupled to flexibly depend

downwardly from said frame means, and

b) ~~stand means mounted to~~ said frame means ~~to provide~~ including a first non-traction receiving surface ~~on which~~ means for supporting a person ~~may stand while standing~~ to don the torso harness means and a second partial traction receiving surface ~~on which~~ means for supporting a person ~~may stand while standing~~ to adjust said harness means with respect to the person's torso and assembly before the person voluntarily steps to a vertical, gravity traction suspension position,

c) said harness means being effective to suspend the person from the frame means for a partial traction pressure when the person stands on said second partial traction receiving surface means after donning said harness means,

d) said partial traction pressure being less than a full traction pressure that is applied to the person ~~who is~~ while in said vertical, gravity traction suspension position.

10. A traction assembly for using gravity to stretch a person's spine, said assembly comprising:

a) ~~free standing~~ freestanding frame means and harness means effective to releasably gird the torso of a person,

b) said harness means being coupled to flexibly depend downwardly from said frame means to suspend the person from the frame means in a gravity vertical traction suspension position, and

c) focused traction force means adjustably connected to the frame means for applying traction pressure directly to a selected location along the spine of the person in said gravity vertical traction suspension position.

11. An assembly as defined in claim 10 wherein

said frame means includes backboard means for supporting an upper body portion of the person who is girded with said harness means and suspended in said ~~gravity~~ vertical traction suspension position.

12. An assembly as defined in claim 11 wherein

said backboard means includes said ~~focused~~ traction force focusing means having releasable tightening means for selectively securing the ~~focused~~ traction focusing force means to a plurality of vertical locations along said backboard means.

13. An assembly as defined in claim 10 wherein

said frame means includes a front rearwardly tilted frame portion including backboard means,

said traction force focusing means includes pad element means adjustably mounted to the backboard means and releasable fastening means for selectively positioning the pad element means with respect to a ~~person using said assembly to undergo vertical traction treatment in a full person's~~ spine before said person is in said vertical traction suspension position.

14. An assembly as defined in claim 10 wherein

said ~~focused~~ traction force focusing means is effective to direct a traction force equal to a fraction of the person's weight at said selected location along the spine of said person.

15. An assembly as defined in claim 14 wherein

said traction force is equal to about 40% of the person's weight.

free rein *n*: unrestricted liberty of action or decision (the dictator had *free rein* to do as he pleased)
 free ride *n*: 1 a benefit (as food, entertainment, or acclaim) gained or accepted at another's expense or without cost to or effort by the one benefiting 2 a: a subscription to a new security offering with the hope that the bonds or shares allotted can be sold out at a profit before actual payment is made b: a speculation on a very thin margin or where a quick profit seems assured by government or other action 3: the right to receive another card in stud poker without putting any chips in the pot
 free rider *n*: one who gets or tries to benefit by a free ride (tried to run a restaurant but failed because of too many friends who were *free riders*); *specif*: a worker who enjoys the benefits derived from a union contract and activities without becoming a member of the union
 free run also free run wine *n*: wine consisting of juice that ran freely from the pomace after fermentation without being pressed out
 freezings *pl* *3d sing of FREE*
 free sample *n*: a usu. small and packaged portion of merchandise distributed free esp. as an introduction to potential customers
 free service *n* [ME *fre service* (trans. of ML *liberum servitium*), fr. *fre* *free* + *service*, *service* service] old English law: one of such feudal services as were not becoming the character of a soldier or a freeman to perform (as to serve under his lord in war) — *usu.* used in pl.
 free ship *n*: a ship of a neutral nation free from capture in time of war even though carrying an enemy's goods — *compare* CONTRABAND OF WAR
 free-sia /'frez(ə)s/ *n* [NL, fr. F.H.T. *Freeze* 1876 Ger. physician + NL *-sia*] 1 cap: a genus of sweet-scented African berries (family Iridaceae) with bulbous tunicate corms and narrow funneliform or tubular red, white, or yellow flowers 2 -s: any plant of the genus *Freezia*
 free silver *n*: 1 the free coinage of silver often at a fixed ratio with gold 2 the advocacy of political philosophy favoring free silver
 free skating *n*: figure skating esp. in competition in which the skater executes skating figures or steps in an arrangement of his own devising to music of his own choice
 free sillage [ME *fre sillage* (trans. of ML *societatem liberum*), fr. *fre* *free* + *sillage*] a free tenure of land held by services of an honorable but not spiritual, military, or servient nature — *called* also *free and common socage*
 free soil *n* [fr. *free* + *soil*] 1 an area in which slavery is prohibited; *esp*: U.S. territory where prior to the Civil War slavery was prohibited — *compare* SLAVE STATE 2: free-soil principles or beliefs
 free-soil /'fri:soil/ *adj* [free soil] 1: of, relating to, or advocating the prohibiting of the extension of slavery to the territories of the U.S. prior to the Civil War 2 *usu* cap F&S: of or belonging to the Free-Soil party which was active during the period 1848-54 in opposing the extension of slavery to the territories of the U.S. and the admission of slave states into the Union
 free-soiler /'fri:soil(r)/ *n*, *usu* cap F&S [free soil + -er]: one that is in favor of free soil or a member of the Free-Soil party
 free-soilism /'fri:soil-izm/ *n* -s *usu* cap F&S [free soil + -ism] 1 the advocacy of free soil
 free speech *n*: FREEDOM OF SPEECH (the first amendment to the Constitution guarantees free speech)
 free-spoken /'fri:spəkn/ *adj*: speaking freely: OUTSPOKEN
 free spool *n*: the spool of a fishing reel equipped with a device that allows the spool to revolve without any tension on the line (as in the process of casting or trolling)
 free-spool /'fri:spul/ *vt*: to set a device controlling the free spool of (a fishing reel) to permit the line to unreel without tension
 freest superlative of FREE
 freestanding /'fri:stændiŋ/ *adj*: standing alone and on its own foundation free of architectural or supporting frame or attachment (a ~ wall) (a ~ stairway) (a piece of ~ sculpture)
 free state *n*, *usu* cap F&S: a state of the U.S. in which slavery was prohibited before the Civil War
 free-state man *n*: a resident of Kansas who was opposed to slavery in the territory before its admission to the Union
 free stater /'fri:stet(r)/ *n*, *usu* cap F&S 1 a native or resident white of the former Orange Free State 2 a native or inhabitant of the Irish Free State b: one professing allegiance to the Irish Free State rather than to an Irish republic
 3: MARYLANDER
 freestone /'fri:stəun/ *n* [ME *frestone*, fr. *fre* *free* + *stoon*, *ston* stone] 1 a stone (as sandstone or limestone) that may be cut freely in any direction without splitting 2 [free + stone] a: a fruit stone to which (as in certain varieties of peach, plum, or cherry) the flesh does not cling b: a fruit having such a stone — *compare* CLINGSTONE 3 a pale orange yellow that is yellow, less strong, and slightly lighter than sunset and yellow and less strong than peachblow — *called* also *Bath stone*, *Cæan stone*
 freestone /'fri:stəun/ *n*: freestone water *n*: water containing little or no dissolved substances (as calcium)
 freestyle /'fri:stail/ *n*, *often attrib*: a race in which a contestant uses a style (as of swimming) of his choice instead of a specified style (as a breaststroke) to be used by all entrants (the one-mile ~) (the prestige of winning the ~ — Shelley Mann) (~ skating)
 free-styl /'fri:stail(r)/ *n*: a competitive swimmer noted for his ability in freestyle events
 free-swimming /'fri:swimmiŋ/ *adj*: able to swim about: not attached
 free-swinging /'fri:swingiŋ/ *adj*: bold, forthright, and heedless of personal consequences or feelings (a *free-swinging* soldier of fortune — Will Herberg) (an energetic, *free-swinging* examination of every facet of the present American educational system — *Saturday Rev.*) (a wrathful, indignant, and *free-swinging* account of the town's crime — Herman Kogan)
 freeth /'fri:t/ *var of* FREE
 freeth /'fri:t/ *var of* FREE
 free-thought /'fri:təut/ *n*: a bat of the families Emballonuridae or Molossididae in which the tail is more or less independent of the posterior portion of the flight membrane
 free tenement [ME *fre tenement* (trans. of AF *franc tenement* frank tenement), fr. *fre* *free* + *tenement*] English law: a freehold tenement
 freethinker /'fri:tɪŋk(r)/ *n*: one that forms opinions (as about religious matters) on the basis of reason independently of authority; *esp*: one whose beliefs differ markedly from those of an established religion usu. in the direction of skepticism or denial of established belief (was far from being a religious skeptic (he scorned ~, and was passionately devoted to the example of Christ — Time) 2: AGNOSTIC SYN *see* AGNOSTIC
 freethinking /'fri:tɪŋkiŋ/ *n* [free + thinking, *n*]: the beliefs of a freethinker (seduced by the intellectual charms of utopian socialism and atheism — G.L.Kline)
 freethinking /'fri:tɪŋkiŋ/ *adj* [free + thinking, *adj*]: holding the beliefs or engaging in the reasoning of a freethinker (discoveries made and offered to a ~ democracy are the basis of tomorrow's decisions — A.A.Berle) (reared in liberal and ~ circles — *Amer. Guide Series: Tenn.*) (under both church and ~ auspices — Oscar Handlin)
 free thought *n*: free thinking or unorthodox thought; *specif*: 18th century deism (the line between tutelage and free thought varies from individual to individual — G.B.Shaw) (heresies naturally grew also; orthodox thought was followed

company 2 [free trade + -er]: one that practices, supports, or advocates free trade
 free-trade zone *n*: FOREIGN-TRADE ZONE
 free union *n* [trans. of F *union libre*]: cohabitation without marriage
 free variable *n*: a variable whose range is not restricted by quantification
 free variation *n*: use or usability in the same environment by different speakers or in different utterances of linguistic items that are perceptually different but semantically the same and idiomatically normal (as using either an unreleased or a released /v/ in *cat* or using either /with/ or /w/ in *with*)
 free verse *n* [trans. of F *vers libre*]: verse whose meter is irregular in some respect or whose rhythm is not metrical
 free vibration *n*: FREE OSCILLATION
 free water *n*: water that is free of water that will settle from oil rapidly b: water in ore analysis that is not in chemical combination with mineral matter c: ground water free to move in response to gravity — *called* also *gravitational water*
 freeway /'fri:weɪ/ *n*: an expressway with fully controlled access 2 a toll-free highway — *compare* PARKWAY, TURNPIKE
 freewheel /'fri:wi:əl/ *n*: 1 a power-transmission system in a motor vehicle comprising an overrunning clutch that is interposed between the gearbox mechanism and the final drive and that makes the connection for a positive drive between the engine shaft and propeller shaft but permits the propeller shaft to run freely when its speed is greater than that of the engine shaft 2 a clutch that is fitted in the rear hub of a bicycle and that engages the rear sprocket with the wheel when the pedals are rotated forward and permits the wheel to run on free from the rear sprocket when the pedals are stopped or rotated backward — *compare* COASTER BRAKE
 freewheel /'fri:wi:əl/ *vt* 1 a: to run freely independently of a gear by the use of a freewheel — *used* of a bicycle, bicyclist, or motor vehicle (he ~ed down the long hill — Bruce Marshall) b: to clutch to operate like a freewheel 2: to move, act, live, or drift along freely, independently, or irresponsibly (desires of rules, responsibilities, or consequences)
 free-wheel /'fri:wi:əl/ *adj*: one that freewheels; *esp*: a free-wheeling bicycle or motor vehicle
 free-wheeling *n* [fr. *gerund of freewheel*]: the action of a free-wheeling bicycle or motor vehicle
 free-wheeling *adj* [fr. *pres. part of freewheel*]: befitting one that freewheels: relatively heedless of forms, rules, responsibilities, or consequences (a ~ logic — Stanley Newman) (reverting to ~ foolishness — Time) (roams about the West in ~ style — John McCarten) (~ generalities — New Yorker) (a good-sounding warning of his grammar and spelling — *Bic*) (Clemens' freewheelingness — *Time*)
 free will *n* [ME *fre wil*, fr. *fre* *free* + *will*, *will* will, *n* 1 the power-asserted of moral beings of willing or choosing within certain limitations or with respect to certain matters without the restraints of physical or divinely imposed necessity or outside causal law: spontaneous will or partially causeless volition 2 the ability to choose between alternative possibilities in such a way that the choice and action are to some extent creatively determined by the conscious subject at the time
 free-will /'fri:wɪl/ *adj* [free will] 1: of or belonging to free will: VOLUNTARY, SPONTANEOUS (a ~ offering) 2 cap: of or relating to Free-will Baptists (Free-will churches)
 free-will baptist *n*, *usu* cap F&S: a member of one of three Baptist groups including an original group and dissenting Bullockites and United American Free-will Baptists that hold Arminian doctrines and observe open communion and except among the Bullockites use, foot washing and anointing
 free-will /'fri:wɪl/ *n*: a believer in or advocate of a doctrine of free will: LIBERTARIAN 2: FREEWILL BAPTIST
 free-willist /'fri:wɪlɪst/ *n*: a FREE-WILLER 1
 free-will offering *n*: a voluntary religious offering made in addition to what is required by a vow, tithe, or pledge (she preached on shipboard and a *free-will offering* from the passengers enabled her to get back east — M.L.Bach)
 freezable /'fri:zəbəl/ *adj*: capable of or susceptible to being frozen
 freeze /'fri:z/ *vt* froze /'fri:z/ or dial friz /'frɪz/ frozen /'frɒzn/ or chiefly dial froze or dial friz /'frɒziŋ/; freezes [ME *freezen*, fr. OE *frosan*, akin to OHG *frosan* to freeze, ON *frosan* to freeze, Goth *fros* coldness, L *pruina* hoarfrost, Skt *pruṣa* drop of water, ice] *vt* 1 a: to become congealed into ice by cold (fresh water ~s at 32° Fahrenheit) b: to become hardened into a solid body by the abstraction of heat (the melting water in an Arsenic vacuum furnace and the molten metal allowed to ~ slowly off the furnace) 2 a: to become chilled with cold: be very cold (the furnace went out and we froze trying to get it going again); also: to suffer loss of animation or life by lack of heat (the lost climber became exhausted and almost froze to death) b: to become coldly formal in manner: act coldly (the hostess froze and avoided us during the party) c: to cause loss of sensitivity in or to anesthetize a part esp. by cold (some dentists prefer freezing to the administering of gas before tooth extraction) 3 a: to remain solidly in contact or affixed by reason of freezing — *used* with (to) dam clothes froze to the clothes line b: to adhere solidly or stay immovably fixed — *used* with (to) (the brake shoe froze to the brake drum) (a large nut to be removed had frozen to its bolt — G.F.Burnley) (under pressure and movement, two clean metal surfaces . . . will weld or ~ together, often with severe consequences — C.H. Hack) c: to grip very tightly (as from fear) — *used* with (to) (the terrified driver froze to the wheel) d (1) of a billiard or pool ball: to come to rest in contact with another ball or with a cushion (2) of a curling stone: to come to rest against another stone e: to have its liquid content freeze: become clogged with ice (in the winter the water pipes froze) (so cold the car radiator froze) b of a car: to have the radiator liquid freeze (we left the car out all night and it froze) 5: to become motionless as if suddenly frozen: a: to stand or remain without movement or activity of any kind (at the least sign of alarm ~ in your tracks and don't move a muscle — Boy Scout Handbook); *esp*: to become incapable of acting or speaking (as from fright) (when I put a mike in front of her she'd ~ — Pete Martin) — *often* used with up b: to become fixed and unalterable (a perceptible tendency for the techniques of microprinting to ~ at present levels — H.M.Silver) c of a mechanism or moving part: to cease to function or to resist movement by reason of jamming, locking, or damage: stick in operation (the intense heat caused the piston to freeze) and the piston froze in the cylinder) (the speedometer froze at 90 miles an hour when the car overturned) 6: to become fixed and motionless or unalterable as if by freezing (the whole crowd had frozen into fascinated attention — Dorothy Sayers) (his anger froze into fear) (smiles which readers prepare for his latest effort may ~ on their faces — Laurence LeSage) — *vt* 1 a: to harden into ice: convert from a liquid to a solid by cold (the low temperature froze the water in the birdbath) b: to clog with ice (the intense cold froze the water pipes) c (1) to: to subject in storage to a temperature below freezing (~ me to freeze it during the summer) (2) to: to subject (food packages) to intense cold and solidification into a block (like ice for preservation (patrons prepared and wrapped meats at home and froze them in their lockers — Pa. State Bull. 433) 2 a: to make extremely cold: give a sensation of extreme cold or an all-embracing sense of coldness to: CHILL (the spectators at the game were frozen by the unseasonably

nice frozen from injections — Monica Stirling) 4 a: to cause to adhere by or as if by the effect of intense cold (the low temperature froze the damp clothes to the line) (the heat of friction froze the two metal surfaces together) b: to cause (a billiard or pool ball) to come to rest in contact with another ball or with a cushion c: to cause to grip tightly or remain in immovable contact as if paralyzed (fear froze the pilot to the controls) 5: to make or cause to become fixed, immovable, inflexible, or unalterable: as a: to cause to stand or remain rigidly motionless (the sudden noise froze the animal in an attitude of fright) (the sound of her name . . . froze her on the bottom step — Berton Roueché) (it isn't fear-paralysis that keeps a rabbit frozen in its squat at the sound of a shot — Sydney [Australia] Bull.) b: to fix securely, permanently, or irrevocably (premature choices tend to lead you into, and ~ you into, commitments which will be inequally rewarding spiritually — H.M.Wriston) (he had concluded that the city manager plan would tend to ~ in office whoever won the first election — Darrell Garwood) c: to harden into inflexibility or convert as if by hardening into a rigid unchanging form (his mind shut hard . . . upon his first impressions and froze them to unalterable convictions — Virginia Woolf) (most social planning to date aims essentially to ~ most of the existing cultural values — A.L.Kroeber) (a scholastic tendency to ~ our concepts of a writer's life — Jay Leyda) (tend to ~ his message into an orthodoxy — André Martinet) d: to fix so as to maintain unaltered in form, condition, or relationship: (1) to stop any further alteration in (a system of rules which ~s a social position and keeps one class or race on top of another) (the design of the production of the new production on current aircraft models — *Newsweek*) (that all unresolved problems . . . be frozen for ten years during which concerted efforts would be made to seek permanent peaceful solutions — N.Y. Times) (freezing the status quo — A.H.Vandenberg 1951) (2) to fix inflexibly (as by executive order) at a point, or in a status governing or prevailing on a particular day (~ the price on essential commodities) (~ wages as of the last pay period) (3) to forbid further manufacture, use, or sale (of a raw material) (4) to immobilize by governmental regulation or legislation the expenditure, withdrawal, or exchange of (foreign-owned bank balances) — *compare* BLOCK 5: to forbid (a worker) to leave or change a job (6) to counteract the growth, expansion, or development of (the older generation was trying to ~ the country and make it static — Hugh MacLennan) (7) to prevent the use of (money) by tying up (as in capital stock or inventory) (the amount of additional capital frozen into the inventory of every tire or oil outlet by the new taxes — T.H. White b. 1915) (another step to free frozen money — P.J.O'Brien) 6 a: to make (as the face) expressions conforming to recognition with one; and in fact he did ~ his face up when an old acquaintance hailed him — Fletcher Pratt) (a look of incredulity froze his face . . . and his eyes went blank with surprise — Hamilton Basso) b: to preserve rigidly a particular expression on (the still staid, his face frozen in shame and misery — Agnes S. Turnbull) 7: to make inaccessible; prevent access to or use of (police chiefs here and there are constantly freezing their records to protect someone — Quill) 8 a: to photograph as static a single point in (fast action) or in the action of (something in fast motion) (pictures made with speedlights . . . ~ action completely — Bruce Downes) (the camera . . . is capable of freezing the whirling of a moving fan blade — *Saturday Rev.*) (high speed photography that freezes bullets in flight — Time) b: to preserve in relatively permanent and unalterable form (the tape could ~ the speech of a native and repeat it as often as desired — N.A.McQuown) 9: to attempt to keep possession of (a ball or puck) in the closing minutes of play (as in a basketball or hockey game) without an attempt to score in order to protect a small lead (they decided to play a defensive game and ~ the ball — A.J.Liebling) 10: to play a wild card on (the discard pile) in canasta and related games — *compare* FROZEN 2e
 freeze /'fri:z/ *n* [ME *freezen*, fr. *freezen*, *v* — more at FREEZE] 1 a state of matter marked by unusually low temperature esp. when below the freezing point (the ~ destroyed the citrus groves — *Amer. Guide Series: Fla.*) 2 an act or instance of freezing: the state of being frozen 3 a: a legislative or administrative and usu. emergency action intended to restrict or forbid something (as the use or manufacture of goods needed in a war effort) or prevent alteration (as in wages, prices, job positions, or manufacturing quotas) (clamped a ~ on certain steel stocks, ordered warehouses to ship them only to defense contractors — Time) (the military ~ on multi-engine helicopter production — E.B.Lee) (a three-and-a-half-year Federal anti-inflation statute (Newsweek) (a ~ is the logical first technique in price control — T.B.Worsley) (60-day temporary ~ of food prices — *Business Week*) b slang: cold and unfriendly treatment c: a keeping possession of the ball or puck (as in basketball or hockey) with no effort at scoring often in the last minutes of play in order to prevent scoring by one's opponent (one never knows when the ~ will be needed to stave off the last-minute rally of an opponent — *Athletic Jour.*)
 freeze-dry /'fri:zdraɪ/ *vt*: to dry in a frozen state under high vacuum so that ice or other frozen solvent sublimates rapidly and a porous solid remains: LYOPHILIZATION
 freeze-dryer *n*: an apparatus used for freeze-drying
 freeze-drying *n* -s [fr. *gerund of freeze-dry*]: the process by which matter is freeze-dried: LYOPHILIZATION
 freeze-me-ter /'fri:zmeɪt(r)/ *n* [freeze + -meter]: a hydrometer designed to test the strength of antifreeze solutions in automobile radiators
 freeze out *vt* [freeze + out] 1 a: to drive out or exclude by cold (the drop in temperature when the furnace went out froze out the club meeting) b: to drive out or eliminate from competition or eliminate or exclude from a position of intimacy, significance, influence, or authority esp. by strategy, by coldly formal rejection, or by force (the depression froze out most of his competitors) (the majority stockholders froze out the minority and took over the business) (tended to freeze out newcomers until their family and educational backgrounds had been ascertained) 2: to eliminate from a game of freeze-out
 freeze-out /'fri:zaut/ *n* -s [freeze out] 1: elimination or exclusion by freezing out 2 a method of playing poker by which the players start with agreed-upon capital to which they cannot add or from which they can withdraw nothing, each player being forced to drop out of the game as soon as his capital is lost and all that thus goes to the last remaining player; also: a poker game played by this method
 freeze over /'fri:zəv(r)/ *vt*: to become covered with a layer of ice (the pond froze over as early as October) ~ *vi*: to cause to become covered with a layer of ice (a single night's cold was enough to freeze over the pond)
 freeze-over /'fri:zəv(r)/ *n* -s [freeze over]: an instance of freezing over (going skating at the first freeze-over on the pond)
 freeze-proof /'fri:zpru:f/ *vt* [freeze + -proof (as in waterproof, *v*)]: to protect (as shipments of coal) from forming a hard solid mass in cold weather
 freezer /'fri:z(r)/ *n* 1 one that freezes or keeps very cold: a: a hand-operated machine that freezes ice cream b: an operator of an ice-cream freezing machine c: a railroad refrigerator car d (1) an insulated compartment or room equipped to freeze perishable foods rapidly at a tempera-

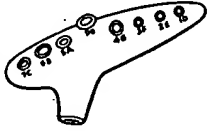


4 officer commanding 5 officer in charge 6 officer's cook
7 official classification 8 old charter 9 old crop 10 on
center *offes not cap* only child 12 open charter 13 open
cave 14 *offes not cap* [l. *opere citato*] in the work cited
15 order canceled 16 signal cover 17 outing club 18 over-
charge 19 oxygen consumed

oca or oka \ 'ókə\ n -s [Sp *oca*, fr. Quechua *dkka*]: either of
two So. American waterfowl sorrels (*Oxalis crenata* and *O.*
tuberosa) cultivated for their edible tubers

oca-a-ri-na \ 'ókə-rē'nə\ n -s [It, dim of *oca* goose, fr. LL *auea*,
fr. (assumed) VL *auca*, back-
formation fr. L *avicularis* small
bird, dim. of *avis* bird — more
at AVIARY.] : a simple wind
instrument or toy of the flute
class having a mouthpiece and
finger holes and usu. made of
terracotta in various sizes —
called also *sweet potato*

occ abbr 1 occasional; occa-



ocarino

oc-ca-m's razor usu cap O, var of OCCAM'S RAZOR
oc-ca-neech-ŋ' ʔk'k'neč'ŋ, n, pl ocaneechi or ocaneeches
usu cap 1: an extinct Siouan people formerly found on the
middle island in the Roanoke river, Virginia 2: a member
of the Ocanechee people
oc-ca-sion ʔ'k'k'zhən \ n -s [ME occasioun, fr. MF and L;
MF occasion, fr. L occasiō, occasio, fr. occasus (past part.
of occidere to fall down, fr. ob- + cadere to fall) + -iōn-,
-iōn- more than at CHANCE] 1 a situation or set of circumstances
favorable to a particular purpose or development: a timely
chance for opportunity 2 a time or place when something
(took ~ by the forelock) (only those living in exceptionally
fortunate localities had ~ to grow surplus products See also
Van Valkenburg & Ellsworth Huntington) (while the new
science has achieved wonders in medicine and surgery, it has
also produced and spread ~s for diseases and weaknesses
— John Dewey) 2 a: something that produces an effect or
brings about an event (a formula that has been the ~ for a
considerable amount of misunderstanding — I. A. Richards)
b: which prompts a mind to ask some fundamental
question — Hunt (Mad.) 3 a: something that
helps to bring about an event or produce an effect without
directly causing it: a contributing or incidental cause (the
birthday . . . was merely the ~, not the cause, of the guests'
effusions — Lillian Ross) (the specific ~ of the poem is not
known — C. S. Kilby) (a casual mention of the house by a
friend was the ~ of their buying it) (an inspiring teacher was
the ~ of his great achievements in science) 3: a circum-
stance or state of affairs that provides ground or
reason for something (with honors is the ~ for celebration
mild illness) (his graduation with honors is the ~ of his
4 a: a particular occurrence: HAPPENING, INCIDENT, CASE
adapted for treatment as a row of detached episodes or ~s
— Percy Lubbock) (everybody has been terribly kind since
my recent sad ~ — Thomas Kelly) b: a particular time at
which something takes place: a time marked by some happen-
ing (on the ~ of his daughter's wedding) (on the ~ of
the signing of the peace treaty) 5 a: a need arising from a
particular circumstance: EXIGENCY, REQUIREMENT (there had
been ~ for being so definite — Sherwood Anderson)
(knowledge for love: a person who never have any ~ — C. H.
Grandgent) b archaic: a person; an individual — usu. used
in pl. (my purse, my person, my extremest means lie all un-
lock'd to your ~ — Shak.) 6 occasions pl: something
that one has to do: necessary affairs: BUSINESS (minded his
own ~s and was content to let other folk mind theirs — S. H.
Adams) (going about their lawful or unlawful ~s all over the
seven seas — Douglas Bush) 7 a: a religious ceremonial;
specif: a Scottish communion service b: a special event or
ceremony: CELEBRATION (he liked the ~ — the Changing of
the Guard at St. James's Palace, parties, and balls, and such
things as that — H. C. Taylor) (sat in the big parlor as though
this was an ~ — Agnes T.) 8 a: a time when an occasion
TUNITY — on occasion adv: now and then OCCASIONALLY
(he lives in the country, though he visits the city on occa-
sion) 2 occasion ʔ' \ vi -ed/-ing/-s 1: to give occasion to: bring
about: give rise to: CAUSE (a violent storm ~ed a new delay
of two weeks — Oscar Handlin) (social and commercial inter-
course will ~ movement of language — Charlton Laird)
2: to cause to do something (was almost at the end of his
pretentious resources, which fact ~ed him to turn away from a
pretentious house) 3: to give occasion to
oc-ca-sion-al ʔ'zhən-l \ adj 1: occurring or operat-
ing on a particular occasion: proceeding from the occasion
(the cabinet has ~ special meetings to deal with urgent
matters) (a budget must be able to meet ~ demands as well
as regular ones) 2: acting as the occasion or contributing
cause of something (nothing else ~ of my long silence — D. G.
Rossetti) 3: written for a particular occasion or to celebrate
a particular event or anniversary (an ~ essay) (an ~ poem)
(~ verse) 4: ~s with which, appearing, or occurring irregularly
and according to no fixed plan, appearing, or occurring irregularly
(takes an ~ vacation) (sees an ~ visitor) (runs in an ~
storm) 5: acting in a specified capacity on a particular
occasion or from time to time (an ~ speaker) (an ~ chauffeur)
(an ~ fisherman) 6: designed or constructed to be used
as the occasion demands (an ~ chair) (an ~ table)
occasional ʔ' \ n -s: something occasional — usu. used in
pl. (the furniture department has a good selection of ~s)
occasional cause n 1 a: a mental state (as desire or decision)
considered as the occasion but not the real cause of a physical
phenomenon (as bodily behavior) b: a physical phenomenon
considered similarly as the occasion of a mental state — compare
OCCASIONALISM 2: a circumstance that precedes an
effect and that without being the real cause is the occasion of
its action
oc-ca-sion-al-ism ʔ'zhən-l'izəm, -zhə-jī- \ n -s [ISV ʔ'occa-
sional + -ism] a doctrine held by the Cartesian philosophers
Gaujinx and Malebranche that mind and matter are in-
herently incapable of affecting each other and that their
apparent reciprocal action must therefore be due to the inter-
vention of God who on the occasion of a change in one
produces the corresponding change in the other — compare
OCCASIONAL CAUSE
oc-ca-sion-al-ist ʔ' \ -l'ist \ n -s [ISV ʔ'occa-sional + -l'ist]: an
adherent of occasionalism
oc-ca-sion-al-ism ʔ'k'k'zhən-l'istik, -zhə-jī- \ adj: of or
relating to occasionalism or occasionalists
oc-ca-sion-al-ity ʔ'k'k'zhə-naləd- \ n -es: the quality or
state of being occasional
oc-ca-sion-al-ly ʔ'k'k'zhən-l'e, -zhə-jī- \ adv 1: now and then: here and there: SOMETIMES (open
Guides are only ~ interrupted by clumps of aspen — Amer.
Guide Service, New.) 2 dial chiefly Eng: on a particular
occasion: for the occasion
oc-ca-sion-er ʔ' \ n-(r) \ n -s: one that occasions
occasions pl of OCCASION, pres 3d sing of OCCASION
oc-ci-dent ʔ'k'k'adent also -d'nt or -dent \ n -s [ME, west,
fr. MF, fr. L occident-, occidens, fr. pres. part. of occidere to
fall down, go down, set — more at OCCATION] 1 obs: the
part of the firmament or of the world where the sun sets —
compare ORIENT 2 usu cap: WEST 2 (sailed for the Occident)

oc-ci-den-tal-iz-a-tion \ˌoʊˌdɛntɪˈzɑːʒən/ *n* -s often cap; the process of occidentalizing or the state of being occidentalized
oc-ci-den-tal-ize \ˌoʊˌdɛntɪˈzɪz/ *v t* -ED/-ING/-S sometimes cap; to make occidental: cause to conform to western standards or culture ~ several religions ~ the gap between the small occidentalized intelligentsia and the great mass of the people —Virginia Thompson & Richard Dloff
occipit- or **occipito-** comb form [ML occipit- & NL occipito-fr. L occipit-, occiput] 1 : occiput (occipitated) 2 : occipital and (occipitonassa)
oc-clip-i-tad \(k)ʰskɪpə,təd/ *adv* [occipit- + -ad] : toward the occiput
oc-clip-i-tal \(k)ʰskɪpəd-əl, -otəl/ *adj* [MF, fr. ML occipitalis, fr. L occipitis, occiput] + -alis -al more at OCCUPUT 1 1 : of or relating to the occiput or an occipital part 2 : lying near or oriented toward the occiput — oc-clip-i-tal-ly \-lɪ,-lɪ,-lɪ-/ *adv*
2 **occipital** \-təl/ *n* -s 1 : OCCIPITAL BONE 2 : a part or structure lying near or on the occiput (as certain scales on reptiles)
occipital arch *n* : a part of the insect cranium between the occipital and postoccipital sutures
occipital artery *n* : a branch of the external carotid supplying the muscles and other structures of the back of the neck and head
occipital bone *n* : a compound bone that forms the posterior part of the skull and surrounds the foramen magnum, bearing the condyle or condyles for articulation with the atlas in higher vertebrates being usu. composed of four more or less completely united elements and in man much curved and of trapezoid outline, ending in front of the foramen magnum in the basilar process, and bearing on its outer surface behind the foramen magnum the two curved transverse superior and inferior nuchal lines besides a median crest and protuberance
occipital condyle *n* 1 : an articular surface on the occipital bone by which the skull articulates with the atlas 2 : a projection of the border of the postocciput of the insect head to which the lateral neck plates articulate
occipital crest *n* 1 : either of the two ridges connecting the occipital protuberances and foramen magnum 2 : a transverse ridge at the upper posterior border of the skull of many animals between the occipital and parietal segments 3 : a crest of feathers on the back of the head of certain birds
occipital foramen *n* 1 : FORAMEN MAGNUM 2 : an opening through the base of an insect's head through which the alimentary canal and other organs pass to the thorax
occipital ganglion *n* : one of the paired ganglia of the stomodaeal nervous system of an insect that are located just behind the brain
oc-clip-i-ta-lis \kʰskɪpəˈtælɪs, -tāl-, -təl-/ *n* -ES [NL, fr. ML, occipitalis] : the posterior muscular part of the occipitofrontalis
occipital lobe *n* : the posterior lobe of the cerebral hemisphere that is indiscreetly separated from the parietal lobe in front and the temporal lobe below and has the form of a 3-sided pyramid
occipital plate *n* : a scute on the back of the head of certain reptiles
occipital point *n* : the point on the occiput farthest removed from the glabella
occipital protuberance *n* : either of two prominences on the occipital bone: a : a prominence on the outer surface of the occipital bone midway between the upper border and the foramen magnum called also gives attachment to the ligamentum nuchae b : called also internal occipital protuberance c : a prominence similarly situated on the inner surface of the occipital bone — called also internal occipital protuberance
occipital sinus *n* : a venous sinus lodged in a groove on the internal occipital crest
oc-clip-i-to-frontalis \kʰskɪpəd-5-ŋ-/ *n* [NL, fr. occipit- + frontalis frontal] : a fibrous layer covering each side of the vertex of the skull from the eyebrow to the occiput and continuous anteriorly and posteriorly with the frontalis and occipital muscles respectively — called also epicranium
oc-clip-i-to-mastoid \-mɔstɔɪd-/ *adj* [occipit- + mastoid] : of, relating to, lying between, or distributed to the occipital and mastoid bones (~ suture)
oc-clip-i-to-parietal index \-+ -rɪ-/ *n* [Occipitoparietal ISV occipit- + parietal] : the ratio of the breadth of the skull between the asters to its greatest breadth multiplied by 100
oc-clip-ut \ˈæksɪ(pjət, usv -d-+v)/ *n*, pl occiputs \-ts/ or **oc-clip-i-ta** \kʰskɪpəd-ə/ [L occipit-, occiput, back-formation (influenza) + caput-, caput head] fr. occipitulum back part of the head, occiput, ob- -clit- (fr. caeter-, caput head) — more at HEAD 1 : the back part of the head of a vertebrate or insect — see DOG illustration 2 : the back part of the skull
oc-ci-sion \kʰskɪˈziʃən/ *n* -s [ME occisioun, fr. MF occision, fr. L occision-, occisio, fr. occidere (past part. of occidere to kill, fr. ob- + caedere to cut, strike, kill) + -ion-, -ion- to -ion- (see -ION)] : SLAUGHTER (applauded their pitiless ~ —R.S.Ellery)
oc-clude \ˈoklud-/ *v* -ED/-ING/-S [L occultudere, fr. ob- + claudere to shut, close — more at CLOSE] *v i* 1 : to shut or stop up so as to prevent the passage of something : CLOSE, OBSTRUCT (a thrombus occluding a coronary artery) (an occluded bronchus) (sank ships to ~ the harbor) 2 : to bar the passage of : shut in or out (concern with the mechanics of pronunciation ~s comprehension of the author's ideas of heart-Artley) (the dandy's world is friendly, formal, and heard ~s) (occluding imagination —Cyril Connolly) 3 : to bring (upper and lower teeth) into occlusal relations 4 : to take in and retain (a substance) (the occlusion of light than on an external surface : SOAR (proteins in precipitating may ~ alcohol) — used esp. of metals sorbing gases (palladium ~s large volumes of hydrogen) 5 : to cut off from contact with the surface of the earth and force aloft by the convergence of a cold front upon a warm front (an occluded cyclone) (occluded warm air) (an occluded low) ~ *v i* 1 : to close with the cusps fitting together (his teeth do not ~ properly) 2 : to become cut off from contact with the earth's surface (the ~ of the moon) 3 : to be left behind by the storm below —T.M.Longstreet
occluded front *n* : OCCUSION 1 c (2) — see FRONT illustration
oc-clud-ent \-d-nt/ *adj* [L occcludens, occultans, pres. part. of occultare] : serving to occlude
occulus- or **occulso-** comb form [prob. fr. (assumed) NL occulus-, fr. L occulus, past part. of occultare to occlude] 1 : occlusion (occlusal) (occlusometer) 2 : occlusal and (occlusingival)
oc-clu-sal \ˈoklusəl/ *adj* [occlus- + -al] : of or relating to the closing or biting surface of a tooth or occlusion of the teeth (~ surface) (occlusal relationship) (an occlusal contact)
oc-clu-sion \-ʒiʃən/ *n* -s [prob. fr. (assumed) NL occultation-, occultatio, fr. L occultus (past part. of occultare to occlude) + -ion-, -ion-] 1 : the act of occluding or the state of being occluded : a shutting off or obstruction of something (a coronary ~) (the silting up and ~ of the mouth of the river) (the ~ of sources of information) : a blocking of the central passage of one reflex by preoccupation of nerve relays with the passage of another b (1) : the complete obstruction of the local passage in the articulation of a stop (2) : the complete obstruction of the nasal passage in the articulation of a nasal consonant c (1) : the complete occlusion of the process of occluding (2) : something that has been occluded

occult abbr occasion
 loc-cult 'ɔːkʌlt, 'kʌlt vb -ED/-ING-ʌs [L *occultare*, fr. *occultus*, past part. of *occultare* to cover up] 1: to hide from sight: CONCEAL (the lids lowered again, ~ing the old eyes' softened gleam —MacLean's Mag.) (if his ~ed guilt do not itself unkenkel in one speech —Shak.) 2: to conceal or extinguish the light of by intervention: ECLIPSE (planets, like stars, but being so close to a planet shows a disk, and does not appear as a mere point, the discalike or to disk-like light extinguished (the beam of the lighthouse ~s at regular intervals) —Patrick Moore) ~ vi: to become concealed or to hide the light extinguished (the beam of the lighthouse ~s at regular intervals)
 occult 'ɔːkʌlt adj [L *occultus*, past part. of *occultare* to cover up] fr. ob + -cultere (akin to L *celare* to conceal) — more at HELL 1: deliberately kept hidden: not revealed to others: SECRET, UNDISCLOSED (too ~ to be shown to uninitiate eyes —Elinor Wylie) (deep subterranean ~ jealousy —J.C.Powys) 2: not to be apprehended or understood: demanding more than ordinary perception or knowledge: MYSTEROUS, MYSTERIOUS, RECONDITE (as far as the general public was concerned, the museum was an esoteric, ~ place —Aline B. Saxon) 3: matters like nuclear physics, radiation effects and the designing of rockets —Robert Bendiner) (the ~ properties of the ductless glands —W.R.Inge) 3 a: (hidden from view: not able to be seen: CONCEALED (the silica may appear in crystalline form . . . or it may remain ~ in the groundmass —G.W. Tyrrell) b: archaic: of or relating to lines drawn in dots or meant to be erased 4: of, relating to, or dealing in matters regarded as involving the action or influence of supernatural agencies or forces: MAGIC, MAGICIAN (deals in the ~ arts) (an ~ fortune-teller) 5: not informed or detectable by clinical methods alone (~ carcinoma) (~ infection) ~ esp: not present in macroscopic amounts (~ blood in the feces) — compare GROSS — oc-cult-ly adv
 occult 'ɔːkʌlt n s: something mysterious or supernatural — usu. used with the (he is a student of the ~)
 oc-cul-ta-tion 'ɔːkʌl'teɪʃən n s [ME *occultacion* concealment, fr. L *occultatio*, *occultatio*, fr. *occultus* (past part. of *occultare* to cover up), -tō, -tōn] 1: the state or process of being hidden from view or lost to notice: disappearance from the public eye (his fame was already emerging from the ~ of changing fashion —Times Lit. Supp.) 2: the shutting off of the light of a celestial body by the intervention of some other celestial body; esp: an eclipse of a star or planet by the moon
 occult balance n: an asymmetrical mode of composition (as in flower arrangement or Chinese and Japanese painting)
 oc-cult-er 'ɔːkʌltə(r), 'k- n s [occult + -er] an occulting opaque object
 occulting adj [fr. pres. part. of 'occult]: of or relating to any of various devices for cutting off from view a light or light-giving body (an ~ disk located in the optical system of the coronagraph blacks out . . . the face of the sun to establish a perpetual, artificial, total eclipse —Christian Science Monitor)
 occulting light n: a navigational light whose beam is interrupted at regular intervals by a brief period of darkness
 oc-cult-ism 'ɔːkʌlt-ɪzəm, 'k- n s [ISV occult + -ism] 1: occult theory or practice: a belief in hidden or mysterious powers and the possibility of subjecting them to human control (~s, incantations, glimpses of the beyond, intimations of another world —L.P.Smith) (a kind of experimental ~ which relied on psychic phenomena for its proofs —Times Lit. Supp.)
 oc-cult-ist 'ɔːkʌlt-ɪst, 'k- n s [ISV occult + -ist] 1: an adherent of occultism: one thought to be proficient in occult practices
 occult mineral n: a mineral molecule shown by calculation of chemical formulae to be present in a rock (as plagioclase in orthoclase) but not actually shown in the microscope
 oc-cult-ness n -es: the quality or state of being occult
 occult spavin n: spavin in which there is pronounced lameness without apparent enlargement on the hock joint
 oc-cu-pance 'ɔːkʌpən(t)s n s [fr. *occupant*, after such pairs as E assistant: assistance] 1: OCCUPANCY (the sequent ~ of the valleys and their adjacent benchlands —Geog. Rev.)
 oc-cu-pan-cy 'nʌs, -sɪ n -es [occupant + -cy] 1 a: the taking and holding possession of real property under a lease or tenancy at will 2: the act of taking possession of something that has no owner (as a raft or derelict) and thus acquiring title to it 2 a: the act of becoming an occupant or the condition of being an occupant (between successive human occupancies, the caves were often used by wild animals —R.W. Murray) (the essential quality of his existence consists in his ~ of this world of symbols and ideas —L.A.White) (ten years of uninterrupted ~ of this position) b: the condition of being occupied (though the village site showed two levels of ~, the temple mound showed three —Amer. Guide Series: Texas) (ghettos were places which were both unattended and unoccupied —Charles Abrams) (the particular use or type of use to which property (as a building or part of a building) is put (residential ~) (industrial ~) (storage ~) 4: an occupied building or part of a building (as an apartment or office)
 oc-cu-pant 'nʌnt n s [MF, fr. pres. part. of *occupare* to take possession, more at OCCUPY] 1 a: one who takes the first possession of something which has no owner and thereby acquires title by occupancy b: will 2 a: one who takes possession under title, lease, or tenancy at will 2 a: one who occupies a particular place or premises: TENANT, RESIDENT (the influence of sudden variations in temperature . . . on the ~s of a small pond —W.H.Dowdeswell) (the only year-around ~s of snowcapped Mount Washington —R.S.Monahan) (the human body has fascinated, pleased and frightened its ~s for many an age —R.M.Yoder) b: one who holds a particular post (as a judge of the bench of the supreme court bench) (the first ~ of the post of assistant to the president —W.C. Sullivan) (he has the actual use or possession of something [lying hurriedly and grab a table whose ~s had scarcely risen fully to their feet —William Sansom)
 oc-cu-pa-tion 'ɔːkʌp'eɪʃən n s [ME *occupacioun*, fr. MF *occupacion*, fr. L *occupatio*-, *occupatio*, fr. *occupatus* (past part. of *occupare* to take possession of, occupy, employ) + -tōn, -tō -lōn — more at OCCUPY] 1 a: an activity in which one engages: a way of passing the time (declared she had always planned ~ for herself while he was away —William Bliss) (the ~ of loafing about the pavers are obviously a major ~ hereabouts —Pannars) b: the business or profession of one's life: a craft, trade, profession or other means of earning a living: EMPLOYMENT, VOCATION (his ~ is farming) (has gone from one ~ to another without settling down to any) (writing has been his ~ for many years) 2: the function or use of something (if the ~ of steamboats be a matter of such general notoriety —John Marshall) (it is . . . the great ~ of the graphic arts to give us first of all order and variety in the use of space —Roger Fry) 3 a: the actual possession and use of real estate (as by lease) b: TENANCY (this fairly old house . . . was otherwise in doctors' and dentists' ~ —Elizabeth Bowen) (the last of the historic private houses in the metropolis . . . still in the ~ of its hereditary owner —Sydney [Australia] Bull.) b: the possession or settlement of a place or area: TENURE (many relics of this early Indian ~ have been found —Amer. Guide Series: N. H.) (from this section westward evidences of ancient human ~ are scarce —Amer. Guide Series: Texas) c: the holding of an office or position (it is the ~ of the two officers that at the same time that offends public policy —W.D.Miller and J. Brit) d: land held by a tenant: HOLDING 4: the act or process of occupying or taking possession of a place or area: SEIZURE

standard port *n*: a port for which the tides are predicted in tide tables — compare **SECONDARY PORT**
standard rate *n*: a basic or minimum rate established for similar work of occupation within a plant, industry, or community by collective agreement or union rule or by law
standard roses *n*: roses
standards pl of STANDARD, *pres 3d sing of STANDARD*
standard schnauzer *n*: a schnauzer of a variety that attains a height of 16 1/2 to 19 1/2 inches
standard score *n*: an individual test score expressed as the deviation from the mean score of the group in units of standard deviation
standard scottish or standard scotch *n*, *often cap 1st S & cap 2d S*: English as taught in Scotch schools
standard shaft *n*: a shaft machined to a standard of zero allowance minus a specified tolerance — compare **STANDARD HOLE**
standard silver *n*: COIN SILVER
standard solution *n*: a solution having a standard or accurately known strength that is used as a reagent in chemical analysis
standard spheroid *n*: the ellipsoid of revolution that most nearly coincides with the figure of the earth
standard star *n*: a star of known position and proper motion used as a standard in determining time, latitude, and the positions of other celestial bodies
standard test *n*: a test (as of intelligence, achievement, or personality) whose reliability has been established by obtaining an average score of a significantly large number of individuals for use as a standard of comparison
standard time *n*: the time of a region or country that is

specially favored position with; *esp*: to be in secret and usu. profitable alliance with
stand-in *\ 's-tæn-din* *n*: *s* [stand in] 1: a preferred position: a place high in favor 2: a someone physically resembling an actor and employed to stand in the actor's place until lights and camera are ready *b*: SUBSTITUTE
standing adj [ME, fr. pres. part. of *standen* to stand] 1: upright on the feet or in place: ERECT (~ audience) (~ member) 2: a not being used or operated (~ factory) *b*: not flowing: STAGNANT (~ water) 3: a: remaining at the same level, degree, or amount for an indeterminate period (made me a ~ offer of \$10,000 for my house) *b*: kept in use indefinitely: remaining valid (one of the ~ problems in physics) (felt her childless state as a ~ reproach to her as a wife) (had a ~ joke with the elevator boy) *c*: kept intact for printing or reprinting or for molding — used of set letterpress matter and sometimes of other printing surfaces (as lithography) (keep the type ~) (~ heads in a newspaper) *d*: established by law or custom: SETTLED, PERMANENT (~ prohibition) 5: a: not movable: fixed in place (~ washbasin) *b*: having a supporting base (~ bowl) 6: done from a standing position (~ ovation) (~ jump) (race from a ~ start)
standing *\ 's-tæn-ding* *n*: [ME, fr. gerund of *standen* to stand] 1: a place to stand in: SITUATION: LOCATION *b*: a position from which one may assert or enforce legal rights and duties *c*: *Brit* (1): STABLE (2): a stall (as in a stable) for a domestic animal 2: a length of service or experience esp. as determining relative place, rank, pay, or privilege (candidates for the fellowship must be of postgraduate ~) *b*: position or condition in society or in a profession: STATUS (lawyer of

fixed spars of a vessel or to support radio, radar, and other equipment carried aloft) — compare **RUNNING RIGGING**
standing roast *n*: a rib roast in which only the heaviest parts of the vertebrae have been removed — compare **ROLLED ROAST**
standing room *n* [*standing*]: space for standing; *esp*: accommodation available for spectators or passengers after all seats are filled
standing rope *n* [*standing*]: a rope permanently fastened and used as a guy
standing rules *n pl*: the rules of a society or organization for details of its government that are created by a majority vote and remain in force until repealed or annulled by a majority vote
standing salt *n*: SALTCELLAR
standing valve *n*: a foot valve at the bottom of an oil-well pump
standing vise *n*: a bench vise at which the operator stands while working
standing wave *n*: a single-frequency mode of vibration of a body or physical system in which the amplitude varies from place to place, is constantly zero at fixed points, and has maxima at other points (as at the nodes and antinodes respectively on a violin string or in an organ pipe) — called also **stationary wave**; compare **TRAVELING WAVE**
standing wave ratio *n*: the ratio of the maximum to the minimum signal voltage on a transmission line
standing ways *n pl*: GROUNDWAYS
stand-ish *\ 'stæn-dish* *n*: *ES* [origin unknown]: a stand for writing materials: INKSTAND
stand *\ 'stænd* *n*: a practice in forestry of securing reproduction from self-sown seed induced by successive cuttings of trees of different ages in the stand and leading to the development of a stand of trees of the same age
stand of colors: the flags carried by a military unit (as a regiment); also: a single such flag
stand off *vi* 1: to stay at a distance in social intercourse or acquaintance: be unapproachable or unobliging 2: to stay away from the shore ~ *vi* 1: a: to hold at a distance: keep from advancing: REPEL (taking cover they managed to stand the Indians off until they could make their escape — D.D. Martin) *b*: to put off: STALL (able to stand off his creditors) 2: *Brit*: to remove temporarily from regular employment: lay off — stand off and on of a sailing ship: to remain near a coast by sailing toward and then away from the land (*standing off* and on while the captain went ashore)
standoff *\ 'stænd-ɔf* *adj* [*stand off*] 1: not cordial: not ready to agree or to make friends: RESERVED (~ attitude) 2: used for holding something (as an electric wire) at a distance from a surface (insulator) — see **INSULATOR** illustration
standoff *\ 'stænd-ɔf* *n*: the act of standing off
2 Brit: a rest from work 3: a: a counterbalancing effect: NEUTRALIZATION *b*: TIE, DRAW, DEADLOCK
standoff coat *n*: a double coat (as of some dogs) in which thick underhair supports profuse long hair so that it stands out from the body
standoff half *n*: a rugby halfback whose position is between the scrum half and the three-quarter backs — called also *fly half*
stand-off-ish *\ 'stænd-ɔf-ɪsh* *adj* [*stand off*] + *-ish*: somewhat standoffish and reserved: lacking cordiality (~ manner) — stand-off-ish-ly *adv* — stand-off-ish-ness *n*: *ES*
stand off *n*: a thickened drying oil prepared orig. by exposing to sunlight and air and now usu. by heating: BODIED OIL; *esp*: linseed oil heated to about 600° F — compare **LITHOGRAPHIC VARNISH**
stand on *vi* [ME *standen* on, fr. *standen* to stand + *on*]: to continue on the same tack or course (whether the approaching ship would stand on or give way)
stand out *vi* 1: a: to appear as if in relief: PROJECT *b*: to be prominent or conspicuous: stick out (success and affluence stood out all over him — Hamilton) 2: to steer away from shore 3: to be stubborn in resolution or resistance: not to yield (if you're rich you can afford to stand out for a really good contract — Christopher Isherwood) ~ *vi*: OUTLAST, ENDURE (stand out a storm)
standout *\ 'stænd-aʊt* *n*: *s* [*stand out*]: something outstanding: a thing or a person readily distinguishable from others because of excellence or uniqueness (a ~ among the available candidates for the office) (the coat is a ~ in this year's fashions)
standout *\ 'stænd-aʊt* *adj*: OUTSTANDING ~ performance in an operative role
stand over *vi*: to await consideration or settlement at a later date (resolution will stand over until the following session)
stand over *vi*: to put off: POSTPONE
standover *\ 'stænd-əv* *adj* [fr. the phrase *stand over*]: making new growth the next year after harvest (~ crop of sugar cane) (~ cotton) — compare **RATOON**
standpat *\ 'stænd-pat* *adj* [fr. the phrase *stand pat*]: of or relating to or characterized by the policy of standing pat: stubbornly conservative
standpat *\ 'stænd-pat* *n*: *s* [fr. the phrase *stand pat*]: STANDPATER
standstiller *\ 'stænd-stil-er* *n*: *s* [*standstill* + *-er*]: one that stands pat in political matters: one that resists or opposes change
standstiller *\ 'stænd-stil-er* *adj*: *s* [*standstill* + *-er*]: the policy of standing pat: resistance to change: reluctance to take positive action (~ is timidity — A.L. Guérard)
standpipe *\ 'stænd-paip* *n*: a vertical pipe used for holding a liquid: as a: a high tank or reservoir that is used to secure a uniform pressure in a water supply system *b*: a vertical pipe for water that is used to provide fire protection to the upper stories of a high building *c*: a manhole frame
standpoint *\ 'stænd-pɔint* *n* [trans. of *G* *Standpunkt*]: a fixed point or station: a position from which objects or principles are viewed and according to which they are compared and judged (arguing a question from the historical ~) (a good method from the ~ of economy)
standpost *\ 'stænd-pɔst* *n*: a post forming a stand (as for a hydrant)
standstill *\ 'stænd-stil* *n*: *s* [*standstill* + *-il*]: a cessation of movement forward or backward: state of rest: STOP (wheels sank in the mud and brought the car to a ~) (death was attributed to cardiac ~ from potassium intoxication — T.R. Harrison) (rate of new building has reached a ~) 2: STILLSTAND 3 3: a: a state of deadlock (negotiations were at a ~ for the time being) *b*: a state of paralyzing indecision or bafflement *c*: a state of exhaustion or thorough defeat (never met a man she couldn't work to a ~ — Frank Sargeant)
standstill *\ 'stænd-stil* *adj* [fr. the phrase *stand still*]: that stands still: that stops or rests: that maintains things in a fixed or static condition (a ~ agreement on nuclear testing)
stand-table *\ 'stænd-tæb* *n*: *s* [*stand* + *-table*]: TABLE
stand up *vb* [ME *stænden* up, fr. OE *stændan* up, fr. *standan* to stand + *up*] *vi* 1: a: to rise to a standing position: stand erect (stand up when the national anthem is played) *b*: to rise vertically (columns of smoke standing up to the sky — Ira Wolfert) 2: to remain sound and intact under stress, pressure, attack, or close scrutiny (a fieldpiece ~ reported to have

STANDARD TIME IN 102 PLACES THROUGHOUT THE WORLD WHEN IT IS

12:00 NOON AT NEW YORK

CITY	TIME
Adelaide, Australia	2:30 A.M. next day
Alexandria, Egypt	7:00 P.M.
Amsterdam, Netherlands	6:00 P.M.
Anchorage, Alaska	7:00 A.M.
Asunción, Paraguay	1:00 P.M.
Athens, Greece	7:00 P.M.
Auckland, New Zealand	5:00 A.M. next day
Baghdad, Iraq	8:00 P.M.
Bangkok, Thailand	12:00 MIDNIGHT
Belgrade, Yugoslavia	6:00 P.M.
Berlin, Germany	12:00 NOON
Bogotá, Colombia	10:30 P.M.
Bombay, India	12:00 NOON
Boston, Massachusetts	6:00 P.M.
Brussels, Belgium	7:00 P.M.
Bucharest, Romania	6:00 P.M.
Budapest, Hungary	7:00 P.M.
Buenos Aires, Argentina	2:00 P.M.
Cairo, Egypt	7:00 P.M.
Calcutta, India	10:30 P.M.
Cape Town, Republic of So. Africa	7:00 P.M.
Caracas, Venezuela	1:00 P.M.
Casablanca, Morocco	6:00 P.M.
Chicago, Illinois	11:00 A.M.
Colombo, Sri Lanka (Ceylon)	10:30 P.M.
Copenhagen, Denmark	6:00 P.M.
Delhi, India	10:30 P.M.
Denver, Colorado	10:00 A.M.
Detroit, Michigan	12:00 NOON
Djakarta, Indonesia	12:00 MIDNIGHT
Dublin, Ireland	5:00 P.M.
Edmonton, Alberta	10:00 A.M.
Geneva, Switzerland	6:00 P.M.
Glasgow, Scotland	5:00 P.M.
Halifax, Nova Scotia	1:00 P.M.
Havana, Cuba	12:00 NOON
Helsinki, Finland	7:00 P.M.
Hong Kong	1:00 A.M. next day
Honolulu, Hawaii	7:00 A.M.
Houston, Texas	11:00 A.M.
Istanbul, Turkey	7:00 P.M.
Jerusalem, Israel	7:00 P.M.
Johannesburg, Republic of So. Africa	7:00 P.M.
Juneau, Alaska	9:00 A.M.
Karachi, Pakistan	10:00 P.M.
Kuala Lumpur, Malaysia	12:30 A.M. next day
La Paz, Bolivia	1:00 P.M.
Leningrad, U.S.S.R.	8:00 P.M.
Lima, Peru	12:00 NOON
Lisbon, Portugal	6:00 P.M.
London, England	5:00 P.M.

*Time is one hour in advance of the standard meridian.

CITY	TIME
Los Angeles, California	9:00 A.M.
Madrid, Spain	6:00 P.M.
Manila, Philippines	1:00 A.M. next day
Melbourne, Australia	3:00 A.M. next day
Mexico City, Mexico	11:00 A.M.
Miami, Florida	12:00 NOON
Montevideo, Uruguay	2:00 P.M.
Montreal, Quebec	12:00 NOON
Moscow, U.S.S.R.	8:00 P.M.
Nairobi, Kenya	8:00 P.M.
Nome, Alaska	6:00 A.M.
Oslo, Norway	6:00 P.M.
Ottawa, Ontario	12:00 NOON
Panama City, Panama	12:00 NOON
Paris, France	6:00 P.M.
Peking, China	1:00 A.M. next day
Perth, Australia	1:00 A.M. next day
Philadelphia, Pennsylvania	12:00 NOON
Prague, Czechoslovakia	6:00 P.M.
Quito, Ecuador	12:00 NOON
Rangoon, Burma	11:30 P.M.
Regina, Saskatchewan	10:00 A.M.
Reykjavik, Iceland	4:00 P.M.
Rio de Janeiro, Brazil	2:00 P.M.
Rome, Italy	6:00 P.M.
Saigon, Vietnam	1:00 A.M. next day
Saint John's, Newfoundland	1:30 P.M.
Saint Louis, Missouri	11:00 A.M.
Salt Lake City, Utah	10:00 A.M.
San Francisco, California	9:00 A.M.
San Juan, Puerto Rico	1:00 P.M.
Santiago, Chile	1:00 P.M.
São Paulo, Brazil	2:00 P.M.
Seattle, Washington	9:00 A.M.
Shanghai, China	1:00 A.M. next day
Singapore	12:30 A.M. next day
Sofia, Bulgaria	7:00 P.M.
Stockholm, Sweden	6:00 P.M.
Sydney, Australia	3:00 A.M. next day
Tehran, Iran	8:30 P.M.
Tel Aviv, Israel	7:00 P.M.
Tokyo, Japan	2:00 A.M. next day
Toronto, Ontario	12:00 NOON
Vancouver, British Columbia	9:00 A.M.
Vienna, Austria	6:00 P.M.
Vladivostok, U.S.S.R.	3:00 A.M. next day
Warsaw, Poland	6:00 P.M.
Washington, D.C.	12:00 NOON
Wellington, New Zealand	5:00 A.M. next day
Winnipeg, Manitoba	11:00 A.M.
Zurich, Switzerland	6:00 P.M.

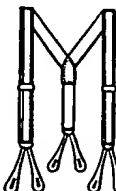
established by law or general usage as civil time: the mean solar time of a meridian that is a multiple of 15 arbitrarily applied to a local area or to one of the 24 time zones and designated as a number of hours earlier or later than Greenwich time 2: the amount of time required for a repeated operation by an experienced worker of average skill working at normal pace and with due allowance for relaxation and interruptions
standard unit *n*: standard deviation used as a unit of measurement of deviation
standard-wing *\ 'stænd-wing* *n*: 1: a bird of paradise (*Semioptera wallacii*) that has two long special feathers standing erect on each wing 2: or standard-winged nightjar: PENNANT-WINGED NIGHTJAR
standaway *\ 'stænd-ə-wei* *adj* [fr. the phrase *stand away*]: standing out from the body (~ neckline) (~ skirt)
stand by *vi* [ME *standen by*, fr. *standen* to stand + *by*] 1: a: to be near at hand: be present (made the statement with several witnesses standing by) *b*: to remain apart or aloof (how can you stand by and let your son ruin himself) 2: a: to be or to get ready to act (standing by to await instructions) (ordered to stand by to let go the anchor) *b*: of a transmitting station: to be ready to send signals *c*: of a receiving station: to remain tuned in
standby *\ 'stænd-bai* *n*: *s* [*stand by*] 1: a: one to be relied upon esp. in emergencies *b*: a favorite or reliable choice or resource (old ~s of the concert repertory) (good old Anglo-Saxon ~s of beef, lamb, mutton, ham, and domestic poultry — Thomas Barbour) 2: one that is held in reserve ready for use: SUBSTITUTE
standby *\ 'stænd-bai* *adj* [*stand by*] 1: held near at hand and ready for emergency use (~ orchestra in a broadcasting station) (~ equipment) (~ crew for fire fighting) (~ power plant) 2: relating to the act or condition of standing by (~ period) (~ time) (~ agreement) (~ pay)
stand down *vi* 1: to sail with the tide or with the wind 2: to leave the witness stand 3: chiefly *Brit* a: to go off duty *b*: to retire from taking part (as in a game) or from a position of leadership
stand-down *\ 'stænd-daʊn* *n*: *s* [*stand down*]: a period of time off: LAYOFF
stand-easy *\ 'stænd-ee-zi* *n*: *ES* [*stand easy*]: a command to troops to be at ease; also: the rest interval so authorized
stand-ee *\ 'stænd-ee* *n*: *s* [*stand* + *-ee*]: one that

high ~; *esp*: good reputation (among those at the meeting were several men of ~ in the community) *c*: position relative to a standard of achievement (left the college in good ~) (attained a ~ of B in his senior year) or to achievements of competitors (improved their ~ in the baseball league by two places) 3: maintenance of position or condition: DURATION (custom of long ~) (marriage of many years ~)
standing army *n* [*standing*]: a permanently organized army of paid soldiers — compare **MILITIA**
standing barrage *n*: a defensive barrage designed to be fired on a particular line
standing bevel *n*: a bevel whose angle is obtuse
standing block or **standing pulley** *n*: a fixed pulley block — distinguished from **running block**
standing committee *n*: a committee to consider subjects of a particular class arising during a stated period; *specif*: a permanent committee of a legislative body
standing crop *n*: a crop not cut or otherwise severed from the soil
standing cup *n*: a tall goblet with a foot and a cover
standing cypress *n*: a tall erect biennial or perennial leafy-stemmed herb (*Gilia rubra*) having the alternate leaves pinately divided into slender needlelike leaflets *b*: numerous largely scarlet flowers in a terminal panicle being native to the southern U.S. but escaped from cultivation and naturalized in areas (as New England) outside its normal range
standing finish *n*: the part of the interior fittings esp. of a house that is permanent and fixed
standing height *n*: STATURE
standing initial *n*: a cockup initial
standing lug *n*: a lugail whose yard is not dipped in tacking — compare **DIPPING LUG**; see **LUGSAIL** illustration
standing operating procedure *n*: established or prescribed tactical or administrative methods to be followed routinely for the performance of designated operations or in designated situations — called also **standard operating procedure**; abbr. **SOP**
standing order *n*: 1: an instruction or prescribed procedure in force permanently or until specifically changed or canceled: as a standing orders *pl*: the rules for the guidance and government of parliamentary procedure which endure through successive sessions until vacated or repealed — distinguished from **sessional order** *b*: standing orders *pl*: routine orders giving authority for the performance of certain prescribed acts

fixed spars of a vessel or to support radio, radar, and other equipment carried aloft) — compare **RUNNING RIGGING**
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standing valve *n*: a foot valve at the bottom of an oil-well pump
standing vise *n*: a bench vise at which the operator stands while working
standing wave *n*: a single-frequency mode of vibration of a body or physical system in which the amplitude varies from place to place, is constantly zero at fixed points, and has maxima at other points (as at the nodes and antinodes respectively on a violin string or in an organ pipe) — called also **stationary wave**; compare **TRAVELING WAVE**
standing wave ratio *n*: the ratio of the maximum to the minimum signal voltage on a transmission line
standing ways *n pl*: GROUNDWAYS
stand-ish *\ 'stæn-dish* *n*: *ES* [origin unknown]: a stand for writing materials: INKSTAND
stand *\ 'stænd* *n*: a practice in forestry of securing reproduction from self-sown seed induced by successive cuttings of trees of different ages in the stand and leading to the development of a stand of trees of the same age
stand of colors: the flags carried by a military unit (as a regiment); also: a single such flag
stand off *vi* 1: to stay at a distance in social intercourse or acquaintance: be unapproachable or unobliging 2: to stay away from the shore ~ *vi* 1: a: to hold at a distance: keep from advancing: REPEL (taking cover they managed to stand the Indians off until they could make their escape — D.D. Martin) *b*: to put off: STALL (able to stand off his creditors) 2: *Brit*: to remove temporarily from regular employment: lay off — stand off and on of a sailing ship: to remain near a coast by sailing toward and then away from the land (*standing off* and on while the captain went ashore)
standoff *\ 'stænd-ɔf* *adj* [*stand off*] 1: not cordial: not ready to agree or to make friends: RESERVED (~ attitude) 2: used for holding something (as an electric wire) at a distance from a surface (insulator) — see **INSULATOR** illustration
standoff *\ 'stænd-ɔf* *n*: the act of standing off
2 Brit: a rest from work 3: a: a counterbalancing effect: NEUTRALIZATION *b*: TIE, DRAW, DEADLOCK
standoff coat *n*: a double coat (as of some dogs) in which thick underhair supports profuse long hair so that it stands out from the body
standoff half *n*: a rugby halfback whose position is between the scrum half and the three-quarter backs — called also *fly half*
stand-off-ish *\ 'stænd-ɔf-ɪsh* *adj* [*stand off*] + *-ish*: somewhat standoffish and reserved: lacking cordiality (~ manner) — stand-off-ish-ly *adv* — stand-off-ish-ness *n*: *ES*
stand off *n*: a thickened drying oil prepared orig. by exposing to sunlight and air and now usu. by heating: BODIED OIL; *esp*: linseed oil heated to about 600° F — compare **LITHOGRAPHIC VARNISH**
stand on *vi* [ME *standen* on, fr. *standen* to stand + *on*]: to continue on the same tack or course (whether the approaching ship would stand on or give way)
stand out *vi* 1: a: to appear as if in relief: PROJECT *b*: to be prominent or conspicuous: stick out (success and affluence stood out all over him — Hamilton) 2: to steer away from shore 3: to be stubborn in resolution or resistance: not to yield (if you're rich you can afford to stand out for a really good contract — Christopher Isherwood) ~ *vi*: OUTLAST, ENDURE (stand out a storm)
standout *\ 'stænd-aʊt* *n*: *s* [*stand out*]: something outstanding: a thing or a person readily distinguishable from others because of excellence or uniqueness (a ~ among the available candidates for the office) (the coat is a ~ in this year's fashions)
standout *\ 'stænd-aʊt* *adj*: OUTSTANDING ~ performance in an operative role
stand over *vi*: to await consideration or settlement at a later date (resolution will stand over until the following session)
stand over *vi*: to put off: POSTPONE
standover *\ 'stænd-əv* *adj* [fr. the phrase *stand over*]: making new growth the next year after harvest (~ crop of sugar cane) (~ cotton) — compare **RATOON**
standpat *\ 'stænd-pat* *adj* [fr. the phrase *stand pat*]: of or relating to or characterized by the policy of standing pat: stubbornly conservative
standpat *\ 'stænd-pat* *n*: *s* [fr. the phrase *stand pat*]: STANDPATER
standstiller *\ 'stænd-stil-er* *n*: *s* [*standstill* + *-er*]: one that stands pat in political matters: one that resists or opposes change
standstiller *\ 'stænd-stil-er* *adj*: *s* [*standstill* + *-er*]: the policy of standing pat: resistance to change: reluctance to take positive action (~ is timidity — A.L. Guérard)
standpipe *\ 'stænd-paip* *n*: a vertical pipe used for holding a liquid: as a: a high tank or reservoir that is used to secure a uniform pressure in a water supply system *b*: a vertical pipe for water that is used to provide fire protection to the upper stories of a high building *c*: a manhole frame
standpoint *\ 'stænd-pɔint* *n* [trans. of *G* *Standpunkt*]: a fixed point or station: a position from which objects or principles are viewed and according to which they are compared and judged (arguing a question from the historical ~) (a good method from the ~ of economy)
standpost *\ 'stænd-pɔst* *n*: a post forming a stand (as for a hydrant)
standstill *\ 'stænd-stil* *n*: *s* [*standstill* + *-il*]: a cessation of movement forward or backward: state of rest: STOP (wheels sank in the mud and brought the car to a ~) (death was attributed to cardiac ~ from potassium intoxication — T.R. Harrison) (rate of new building has reached a ~) 2: STILLSTAND 3 3: a: a state of deadlock (negotiations were at a ~ for the time being) *b*: a state of paralyzing indecision or bafflement *c*: a state of exhaustion or thorough defeat (never met a man she couldn't work to a ~ — Frank Sargeant)
standstill *\ 'stænd-stil* *adj* [fr. the phrase *stand still*]: that stands still: that stops or rests: that maintains things in a fixed or static condition (a ~ agreement on nuclear testing)
stand-table *\ 'stænd-tæb* *n*: *s* [*stand* + *-table*]: TABLE
stand up *vb* [ME *stænden* up, fr. OE *stændan* up, fr. *standan* to stand + *up*] *vi* 1: a: to rise to a standing position: stand erect (stand up when the national anthem is played) *b*: to rise vertically (columns of smoke standing up to the sky — Ira Wolfert) 2: to remain sound and intact under stress, pressure, attack, or close scrutiny (a fieldpiece ~ reported to have



suspensive veto *n* : a veto by which a law is merely suspended until reconsidered by the legislature and becomes a law if re-passed by an ordinary majority



suspenders 2a



suspension 1e: a

ver-te-brate \-brāt, usu -ēd + V\ vt -ED/-INO/-S : to link together in a manner suggesting vertebrae
vertebrate \vɛr-tē-brāt/ n [NL *Vertebrata*] : a vertebrate animal
ver-te-brat-ed \-brāt-ēd/ adj [NL *vertebratus* + E -ed] : VERTEBRATE 2 : composed of or having vertebrae or segments resembling vertebrae (a fish with a tail)
ver-te-brat-ion \-brāshən/ n -s [NL *vertebratio* + -ion] : strength as if from a firm spinal column : FIRMNESS (the solid ~ of his logic)
ver-te-bre \vɛr-d-ə-brē/ n -s [MF, fr. L *vertebra*] archaic : VERTEBRA
vertebro- -see VERTEBR-
ver-te-bro-chondral \vɛr-d-ə-brō + V\ adj [vertebr- + chondral] : of, relating to, or involving a vertebra and a costal cartilage
ver-te-bro-sternal \-stə-nəl/ adj [vertebr- + sternal] : of, relating to, or extending between the vertebrae and the sternum
ver-ted part of VERT
ver-tep \vɛr-tēp/ n -s [Russ, lit., cavern, den] : an early Russian puppet show
ver-tex \vɛr-tēks, -vā/ n, pl verti-cēs \d-ə-sēz, [tə-] also verticēs \-tēksēz/ [L *vertex*, whirl, whirlpool, high-est point, peak, fr. L *vertēre* to turn—more at WORTH] 1 a : the point opposite to and farthest from the base in any figure having a base : the terminating point (as where the sides of an angle meet or where a curve or surface meets its axis) of some particular lines in a figure or a curve : the intersection of a cone and its principal axis 2 a : the highest point b : the point of intersection of an axially symmetrical optical surface with its axis of symmetry c (1) : ZENITH 1; also : the point on the limb of a celestial body nearest the zenith (2) : a point on the celestial sphere toward which star stream-ings is directed 2 : the top of the head; as a : the upper part of the head of an insect in front above the antennae and between the compound eyes b (1) : the highest point of the human skull when held in the eye-ear plane (2) : the highest median point of the head of the living human when in a natural position 3 : a principal or highest point : SUMMIT, APEX (a monument on the ~ of the hill); often : the high point of an arch : CROWN, KEYSTONE
ver-ti-cal \vɛr-d-ə-kəl, -vāl, [vāl, [tēk-] adj [MF or LL *verticalis*, fr. L *verticalis*, fr. L *verticē*, vertex peak + -alis -al] 1 a : of or relating to the vertex : situated at the highest point : directly overhead or in the zenith b obs : being or relating to a high point (as of a life, of eminence, or of ex-pel-ence) c : of or relating to the vertex of the head d : of, relating to, or being an aerial photograph taken with the camera pointing straight down or nearly so 2 a : perpendicu-lar to the plane of the horizon or to a primary axis : UPRIGHT, PLUMB (a ~ line) b (1) : located at right angles to the plane of a supporting surface (2) : lying in the direction of an axis : LENGTHWISE c : directed upward or downward at a right angle to the plane of the body or part of the surface of the earth (~ fins of a fish) 3 : relating to, involving, or inte-grating discrete elements (as from lowest to highest or from first to last) as a : consisting of two or more economic units on different levels of production or distribution (a ~ business organization) (a complex ~ manufacturing operation) (the ~ of a company) b : of relating to, or comprising persons of different status (the ~ of arrangement of society) (race, religion, and nation are examples of ~ groups—C.M. Panunzio) : compare INDUSTRIAL UNION 4 : relating to harmony esp. in a homophonic composition as contrasted with a contrapuntal one : compare HORIZONTAL 2b(3) 5 of a stamp : having a rectangular shape with the shorter sides forming the top and bottom 6 : coming from or involving action from above and specif. from the air (~ warfare); esp : constituting aerial bombing from a craft flying parallel with the earth
syn PERPENDICULAR, PLUMB : VERTICAL in general nontechni-cal use may suggest the line direction rising upward toward a zenith (the style is the characteristic American nontechnical skyscraper design, with horizontal lines subdued and the vertical lines emphasized—*Amer. Guide Series*: Minn.) (the vertical, or conventional, approach was to begin at a designated place and time in history, and then climb the chronological ladder until you reached the present—Norman Cousins) and it may also be applied to a straight downward direction but is so used less frequently (face, as many have done and are doing, the level as opposed to the vertical fire of the enemy—Sir Winston Churchill) (it is somewhat more likely than vertical to suggest a downward line or straight drop or descent (it ap-pears that the water is broken nowhere by striking against the rocks, and that therefore the descent is perpendicular—An-thony Trollope) (the trail led under the foot of a high, almost perpendicular rock—C.G.D. Roberts) PLUMB in this sense is mainly an artisan's or builder's term indicating exact verti-cality capable of being ascertained by plumb line (the wall was not plumb)
vertical \-vɛr-tē-kəl/ n -s : something that is vertical; as a ~ obs : VER-TEX, HEIGHT, SUMMIT b : a vertical line, plane, or circle; esp : PERPENDICULAR c : a vertical member in a truss d : a vertical photograph : an aerial photograph taken with the camera pointed straight downward e : UPRIGHT PLANO
vertical angle 1 : an angle measured on a vertical circle either upward or downward from the horizon 2 : either of two angles lying on the opposite sides of two intersecting lines or planes
vertical bank : a slight maneuver in which an airplane is so steeply banked that its longitudinal axis approaches the ver-tical
vertical circle 1 a : a great circle of the celestial sphere whose plane is perpendicular to that of the horizon : AZIMUTH CIRCLE b : an astronomical observational circle so mounted as to turn to any azimuth 2 : a theodolite having a finely divided circle on its horizontal axis and used for measuring altitudes
vertical combination or vertical integration : a combining of business firms engaged in different phases of the manufac-ture and distribution of a product into an interacting whole
vertical curve : an easement curve in railroad track to con-nect intersecting grades
vertical engine : an engine in which the piston moves verti-cally up and down and the crankshaft is usu. below the cylin-der
vertical envelopment : envelopment of a military enemy from the air (as with troops dropped by parachute or landed by gliders, helicopters, or airplanes) usu. to seize key objectives in the enemy's rear
vertical-fiber brick : a wire-cut vitrified paving brick laid in a pavement with a wire-cut face up
vertical file 1 : a file in which records of which are placed upright or on edge 2 : a collection of pamphlets, clippings, and ephemera (as in a library) that is maintained to answer brief questions quickly or to provide points of information not easy to locate elsewhere
vertical fin : any of the median fins of a fish : a dorsal, anal, or caudal fin
vertical flute : RECORDEUR
vertical gradient : LAPSE RATE
vertical grain : quarter-sawn lumber
vertical-grained \-grān-ēd/ adj : QUARTER-SAWN

vertical limb : a graduated arc attached to an instrument (as a theodolite), for measuring vertical angles
vertical line : a line perpendicular to a surface or to another line considered as a base; as a : a line perpendicular to the horizon b : a line parallel to the sides of a page or sheet as distinguished from a horizontal line c : the direction of a plumb line : a line normal to the surface of still water
ver-ti-cal-ly \-vɛr-tē-kəl-ē/ adv : so as to be vertical : in re-spect to the vertical
ver-ti-cal-ness \-vɛr-tē-kəl-nēs/ n -s : VERTICALITY
vertical plane 1 : a plane that passes through a vertical line 2 : a plane of perspective passing through the point of sight and perpendicular to the ground plane and to the picture
vertical reversal : an air maneuver in which an airplane reverses its direction of flight by pulling up in a vertical climb until stall, dropping the nose in a wingover, and doing a half-roll
vertical sash : a sash sliding up and down—compare FRENCH SASH
vertical saw 1 : a saw (as a muley saw) whose supporting frame moves in vertical guides 2 : a circular saw operating in a vertical plane
vertical section : a mechanical drawing showing an interior, wall thicknesses, and similar relations as if made on a vertical plane passing through the object (as a building) depicted
vertical south dial : a sundial (as on the south wall of a building) in the vertical plane facing south
vertical structure : a music composed or viewed as a suc-cession of chords or chords in contrast to simultaneous independent melodies—compare HORIZONTAL STRUCTURE
vertical trust : a trust formed by vertical combination
vertical union : INDUSTRIAL UNION
vertices \vɛr-tē-sēz/ n -s [NL *verticillus*, fr. L, whorl of a spindle] : a circle or whorl of similar body parts (as flowers) about a point on an axis or sensory hairs about an antennal joint
verticil-las \vɛr-tē-sē-lās/ n -s [NL *verticillus*, fr. L, whorl of a spindle, dim. of *verticē*, vertex whirl—more at VERTEX] : whorl : verticil-las-trate \-trāt-ēd/ adj [NL *verticillatus*, fr. L, verticil-las-trate] : a mixed inflorescence (as in many labiates) consisting of a pair of much-condensed nearly sessile cymes arranged around an axis like a true verticil—see INFLORESCENCE illustra-tion
ver-ti-cl-las-trate \-trāt-ēd/ adj [NL *verticillatus* + E -ate] : bearing or arranged in verticillasters
ver-ti-cl-las-trate \-trāt-ēd/ adj [NL *verticillatus*, fr. L, fem. pl. of *verticil-las*, fr. L, verticil-las] : syn of CASABIANUS
ver-ti-cl-las-trate \-trāt-ēd/ adj [NL *verticillatus*, fr. L, verticil-las + L -atus -ate] : arranged in verticils : WHORLED; esp : arranged in a transverse whorl like the spokes of a wheel (~ leaves) (a ~ shell)—ver-ti-cl-las-trate-ly \-lē/ adv—ver-ti-cl-las-trate-ly \-lē/ adv [NL *verticillatus* + E -ed] : VERTICILLATE
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